CDX-GT610U/GT660U/ GT660US

SERVICE MANUAL

Ver. 1.1 2007.03

Canadian Model
CDX-GT610U
E Model
CDX-GT660U/GT660US
Chinese Model
CDX-GT660U

(Photo: CDX-GT610U)

• The tuner and CD sections have no adjustments.

Model Name Using Similar Mechanism	CDX-GT41UW/GT410U/ GT460U/GT460US
CD Drive Mechanism Type	MG-101U-188//Q
Optical Pick-up Name	DAX-25A

SPECIFICATIONS

CD player section

Signal-to-noise ratio	120 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

Tuner section

FM

Tuning range	CDX-GT610U: 87.5 – 107.9 MHz CDX-GT660U: E, Chinese model/GT660US: 87.5 – 108.0 MHz (at 50 kHz step) 87.5 – 107.9 MHz (at 200 kHz step) CDX-GT660U: Saudi Arabia model: 87.5 – 108.0 MHz (at 50 kHz step)
FM tuning interval	CDX-GT660U: E, Chinese model/GT660US: 50 kHz/200 kHz switchable
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM

Tuning range	CDX-GT610U: 530 – 1,710 kHz CDX-GT660U: E, Chinese model/GT660US: 531 – 1,602 kHz (at 9 kHz step) 530 – 1,710 kHz (at 10 kHz step) CDX-GT660U: Saudi Arabia model: 531 – 1,602 kHz (at 9 kHz)
AM tuning interval	CDX-GT660U: E, Chinese model/GT660US: 9 kHz/10 kHz switchable
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

USB player section

Interface	USB (Full-speed)
Maximum current	500 mA

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	52 W × 4 (at 4 ohms)

– Continued on next page –

FM/AM COMPACT DISC PLAYER

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2007C04-1
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Sony Corporation
eVehicle Division
Published by Sony Techno Create Corporation

SONY®

General

Outputs	Audio outputs terminal (front/rear)
	Subwoofer output terminal (mono)
	Power antenna relay control terminal
	Power amplifier control terminal
Inputs	Telephone ATT control terminal
	Illumination control terminal
	BUS control input terminal
	BUS audio input terminal/AUX IN terminal
	Remote controller input terminal
	Antenna input terminal
Tone controls	Low: ±10 dB at 60 Hz (XPLOD)
	Mid: ±10 dB at 1 kHz (XPLOD)
	High: ±10 dB at 10 kHz (XPLOD)
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 180 mm (7 1/8 × 2 × 7 1/8 in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 162 mm (7 1/4 × 2 1/8 × 6 1/2 in.) (w/h/d)
Mass	Approx. 1.3 kg (3 lb. 5 oz.)
Supplied accessories	Card remote commander: RM-X151
	Parts for installation and connections (1 set)

Design and specifications are subject to change without notice.

US and foreign patents licensed from Dolby Laboratories.

SERVICE NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

TEST DISCS

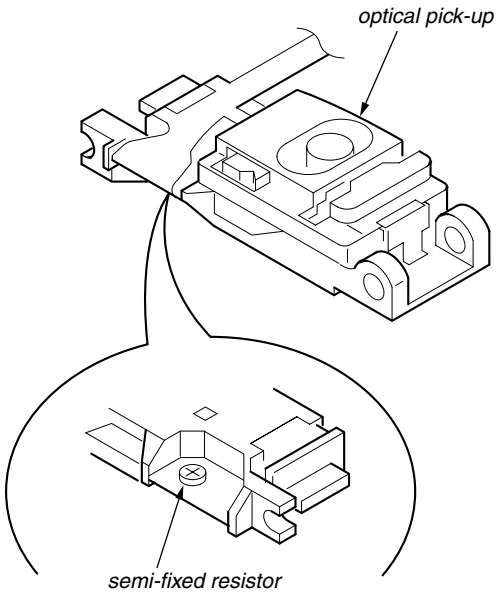
Please use the following test discs for the check on the CD section.

YDES-18 (Part No. 3-702-101-01)
PATD-012 (Part No. 4-225-203-01)

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



This compact disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the exterior.

Except Canadian, Chinese model

CLASS 1
LASER PRODUCT

This label is located on the bottom of the chassis.

Chinese model

1类激光产品

此标签位于机壳的底部。

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

• **CD playback**

You can play CD-DA (also containing CD TEXT*), CD-R/CD-RW (MP3/WMA/AAC files also containing Multi Session) and ATRAC CD (ATRAC3 and ATRAC3plus format).

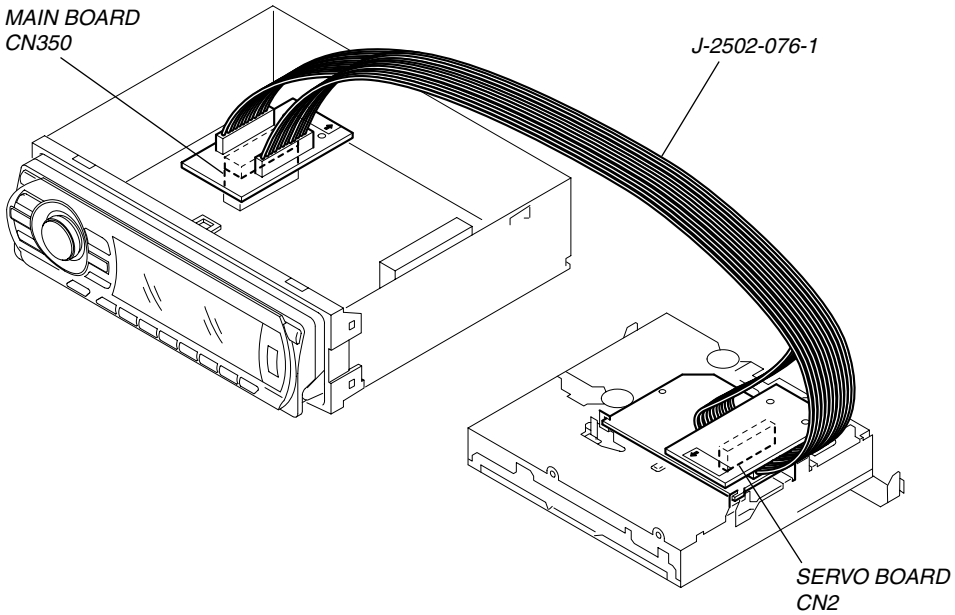
Type of discs	Label on the disc
CD-DA	COMPACT disc DIGITAL AUDIO Recordable / COMPACT disc DIGITAL AUDIO ReWritable
MP3 WMA AAC ATRAC CD	COMPACT disc DIGITAL AUDIO Recordable / COMPACT disc DIGITAL AUDIO ReWritable COMPACT disc Recordable / COMPACT disc ReWritable

* A CD TEXT disc is a CD-DA that includes information such as disc, artist and track name.

EXTENSION CABLE AND SERVICE POSITION

When repairing or servicing this set, connect the jig (extension cable) as shown below.

• Connect the MAIN board (CN350) and the SERVO board (CN2) with the extension cable (Part No. J-2502-076-1).



●UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

• Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
Soldering irons using a temperature regulator should be set to about 350°C.
Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!

• Strong viscosity
Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.

• Usable with ordinary solder
It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

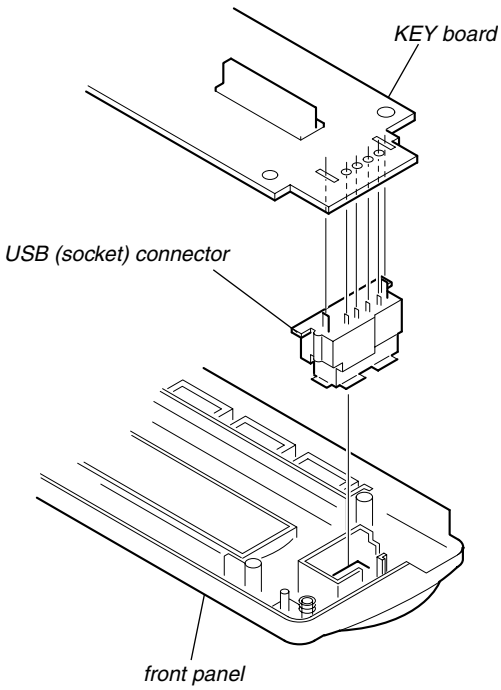
NOTE FOR REPLACEMENT OF THE SERVO BOARD

When repairing, the complete SERVO board (A-1206-357-A) should be replaced since any parts in the SERVO board cannot be repaired.

NOTE FOR REPLACEMENT OF THE USB CONNECTOR (J11)

To replace the USB connector requires alignment.

1. Insert the USB connector into the front panel.
2. Place the KEY board on the front panel and align the terminals of the USB connector with the holes in the KEY board.
3. Solder the four terminals of the connector.



NOTE FOR THE 20-PIN CONNECTOR (CN901)

Do not use alcohol to clean the 20-pin connector (CN901) connecting the front panel with the main body.
Do not touch the connector directly with your bare hand. Poor contact may be caused.

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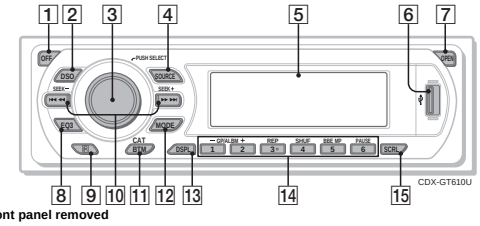
SECTION 1
GENERAL

This section is extracted from instruction manual.

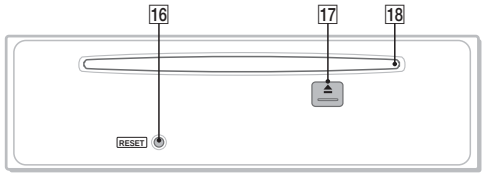
• LOCATION OF CONTROLS
• CDX-GT610U

Location of controls and basic operations

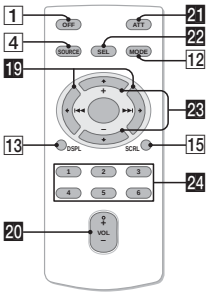
Main unit



Front panel removed



Card remote commander RM-X151



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 **OFF button**
To power off; stop the source.

2 **DSO button** 4
To select the DSO mode (1, 2, 3 or OFF). The larger the number, the more enhanced the effect.

3 **Volume control dial/select button** 10
To adjust volume (rotate); select setup items (press and rotate).

4 **SOURCE button**
To power on; change the source (Radio/CD/MD*1/USB/AUX/SAT*2).

5 **Display window**

6 **USB terminal** 9
To connect to the USB device.

7 **OPEN button** 5

8 **EQ3 (equalizer) button** 10
To select an equalizer type (XPLOD, VOCAL, EDGE, CRUISE, SPACE, GRAVITY, CUSTOM or OFF).

9 **Receptor for the card remote commander**

10 **SEEK –/+ buttons**
CD/MD*1/USB*3:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); reverse/fast-forward a track (press and hold).
Radio:
To tune in stations automatically (press); find a station manually (press and hold).

11 **BTM/CAT*2 button** 8
To start the BTM function (press and hold).

12 **MODE button** 8, 10, 11
To select the radio band (FM/AM); select the SAT tuner band (mode)*2; select the unit*4; select the play mode*5.

13 **DSPL (display) button** 8, 9
To change display items.

14 **Number buttons**
CD/MD*1/USB*3:
1/2: **GP*6/ALBM*7** –/+
To skip albums (press); skip albums continuously (press and hold).*8
3: **REP** 8, 10, 12
4: **SHUF** 8, 10, 12
5: **BBE MP*9** 2
To activate the BBE MP function, set "BBE MP-ON." To cancel, set "BBE MP-OFF."
6: **PAUSE*9**
To pause playback. To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).

15 **SCRL (scroll) button** 8, 9
To scroll the display item.

16 **RESET button** 4

17 **⏏ (eject) button** 5
To eject the disc.

18 **Disc slot** 5
To insert the disc.

The following buttons on the card remote commander have also different buttons/functions from the unit. Remove the insulation film before use (page 4).

19 **⏮ (I◀◀)/⏭ (▶▶I) buttons**
To control CD/radio/MD/USB, the same as SEEK –/+ on the unit.

20 **VOL (volume) +/– button**
To adjust volume.

21 **ATT (attenuate) button**
To attenuate the sound. To cancel, press again.

22 **SEL (select) button**
The same as the select button on the unit.

23 **↑ (+)/↓ (–) buttons**
To control CD, the same as 1/2 (GP/ALBM –/+) on the unit.

24 **Number buttons**
To receive stored stations (press); store stations (press and hold).

*1 *When an MD changer is connected.*
*2 *When the SAT tuner is connected.*
*3 *When a USB device is connected.*
*4 *When a CD/MD changer is connected.*
*5 *When an ATRAC Audio Device is connected.*
*6 *When an ATRAC CD is played.*
*7 *When an MP3/WMA/AAC is played.*
*8 *If the changer/USB is connected, the operation is different, see page 12.*
*9 *When playing back on this unit and a USB device.*

Notes
- *When ejecting/inserting a disc, keep any USB devices disconnected to avoid damage to the disc.*
- *If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless SOURCE on the unit is pressed, or a disc is inserted to activate the unit first.*

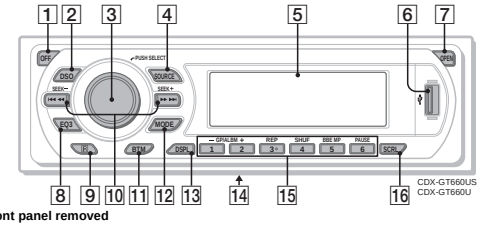
Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander" on page 15.

About USB cap
When not using the USB terminal (6), use the supplied USB cap to prevent dust or dirt entering. Keep the USB cap out of the reach of children to prevent accidental swallowing.

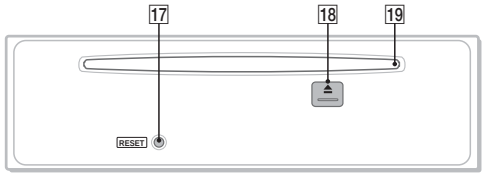
• CDX-GT660U: E, Chinese model/GT660US

Location of controls and basic operations

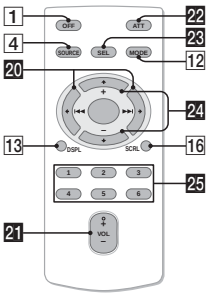
Main unit



Front panel removed



Card remote commander RM-X151



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 **OFF button**
To power off; stop the source.

2 **DSO button** 4
To select the DSO mode (1, 2, 3 or OFF). The larger the number, the more enhanced the effect.

3 **Volume control dial/select button** 10
To adjust volume (rotate); select setup items (press and rotate).

4 **SOURCE button**
To power on; change the source (Radio/CD/MD*1/USB/AUX).

5 **Display window**

6 **USB terminal** 9
To connect to the USB device.

7 **OPEN button** 5

8 **EQ3 (equalizer) button** 10
To select an equalizer type (XPLOD, VOCAL, EDGE, CRUISE, SPACE, GRAVITY, CUSTOM or OFF).

9 **Receptor for the card remote commander**

10 **SEEK –/+ buttons**
CD/MD*1/USB*2:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); reverse/fast-forward a track (press and hold).
Radio:
To tune in stations automatically (press); find a station manually (press and hold).

11 **BTM button** 8
To start the BTM function (press and hold).

12 **MODE button** 8, 10, 12
To select the radio band (FM/AM); select the unit*3; select the play mode*4.

13 **DSPL (display) button** 8, 9
To change display items.

14 **Frequency select switch** (located on the bottom of the unit)
See "Frequency select switch" in the supplied installation/connections manual.

15 **Number buttons**
CD/MD*1/USB*2:
1/2: **GP*5/ALBM*6** –/+
To skip albums (press); skip albums continuously (press and hold).*7
3: **REP** 8, 10, 12
4: **SHUF** 8, 10, 12
5: **BBE MP*8** 2
To activate the BBE MP function, set "BBE MP-ON." To cancel, set "BBE MP-OFF."
6: **PAUSE*8**
To pause playback. To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).

16 **SCRL (scroll) button** 8, 9
To scroll the display item.

17 **RESET button** 4

18 **⏏ (eject) button** 5
To eject the disc.

19 **Disc slot** 5
To insert the disc.

The following buttons on the card remote commander have also different buttons/functions from the unit. Remove the insulation film before use (page 4).

20 **⏮ (I◀◀)/⏭ (▶▶I) buttons**
To control CD/radio/MD/USB, the same as SEEK –/+ on the unit.

21 **VOL (volume) +/– button**
To adjust volume.

22 **ATT (attenuate) button**
To attenuate the sound. To cancel, press again.

23 **SEL (select) button**
The same as the select button on the unit.

24 **↑ (+)/↓ (–) buttons**
To control CD, the same as 1/2 (GP/ALBM –/+) on the unit.

25 **Number buttons**
To receive stored stations (press); store stations (press and hold).

*1 *When an MD changer is connected.*
*2 *When a USB device is connected.*
*3 *When a CD/MD changer is connected.*
*4 *When an ATRAC Audio Device is connected.*
*5 *When an ATRAC CD is played.*
*6 *When an MP3/WMA/AAC is played.*
*7 *If the changer/USB is connected, the operation is different, see page 12.*
*8 *When playing back on this unit and a USB device.*

Notes
- *When ejecting/inserting a disc, keep any USB devices disconnected to avoid damage to the disc.*
- *If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless SOURCE on the unit is pressed, or a disc is inserted to activate the unit first.*

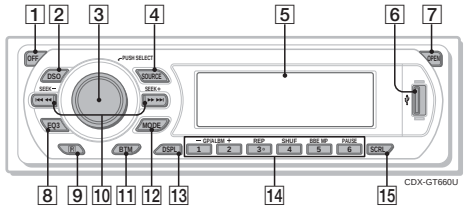
Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander" on page 15.

About USB cap
When not using the USB terminal (6), use the supplied USB cap to prevent dust or dirt entering. Keep the USB cap out of the reach of children to prevent accidental swallowing.

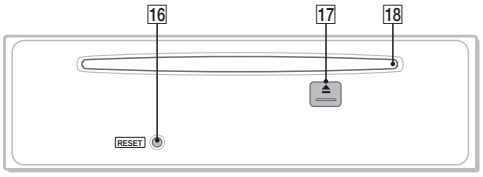
• CDX-GT660U: Saudi Arabia model

Location of controls and basic operations

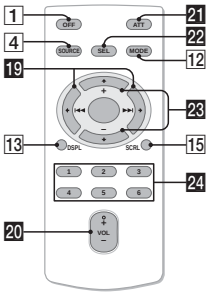
Main unit



Front panel removed



Card remote commander RM-X151



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 **OFF button**
To power off; stop the source.

2 **DSO button** 4
To select the DSO mode (1, 2, 3 or OFF). The larger the number, the more enhanced the effect.

3 **Volume control dial/select button** 10
To adjust volume (rotate); select setup items (press and rotate).

4 **SOURCE button**
To power on; change the source (Radio/CD/MD*1/USB/AUX).

5 **Display window**

6 **USB terminal** 9
To connect to the USB device.

7 **OPEN button** 5

8 **EQ3 (equalizer) button** 10
To select an equalizer type (XPLOD, VOCAL, EDGE, CRUISE, SPACE, GRAVITY, CUSTOM or OFF).

9 **Receptor for the card remote commander**

10 **SEEK –/+ buttons**
CD/MD*1/USB*2:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); reverse/fast-forward a track (press and hold).
Radio:
To tune in stations automatically (press); find a station manually (press and hold).

11 **BTM button** 8
To start the BTM function (press and hold).

12 **MODE button** 8, 10, 12
To select the radio band (FM/AM); select the unit*3; select the play mode*4.

13 **DSPL (display) button** 8, 9
To change display items.

14 **Number buttons**
CD/MD*1/USB*2:
(1)/(2): **GP*3/ALBM***5 –/+
To skip albums (press); skip albums continuously (press and hold).*7
(3): **REP** 8, 10, 12
(4): **SHUF** 8, 10, 12
(5): **BBE MP***6 2
To activate the BBE MP function, set "BBE MP-ON." To cancel, set "BBE MP-OFF."
(6): **PAUSE***8
To pause playback. To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).

15 **SCRL (scroll) button** 8, 9
To scroll the display item.

16 **RESET button** 4

17 **⏏ (eject) button** 5
To eject the disc.

18 **Disc slot** 5
To insert the disc.

The following buttons on the card remote commander have also different buttons/functions from the unit. Remove the insulation film before use (page 4).

19 **← (I◄◄)/→ (►►I) buttons**
To control CD/radio/MD/USB, the same as (SEEK) –/+ on the unit.

20 **VOL (volume) +/– button**
To adjust volume.

21 **ATT (attenuate) button**
To attenuate the sound. To cancel, press again.

22 **SEL (select) button**
The same as the select button on the unit.

23 **↑ (+)/↓ (–) buttons**
To control CD, the same as (1)/(2) (GP/ALBM –/+) on the unit.

24 **Number buttons**
To receive stored stations (press); store stations (press and hold).

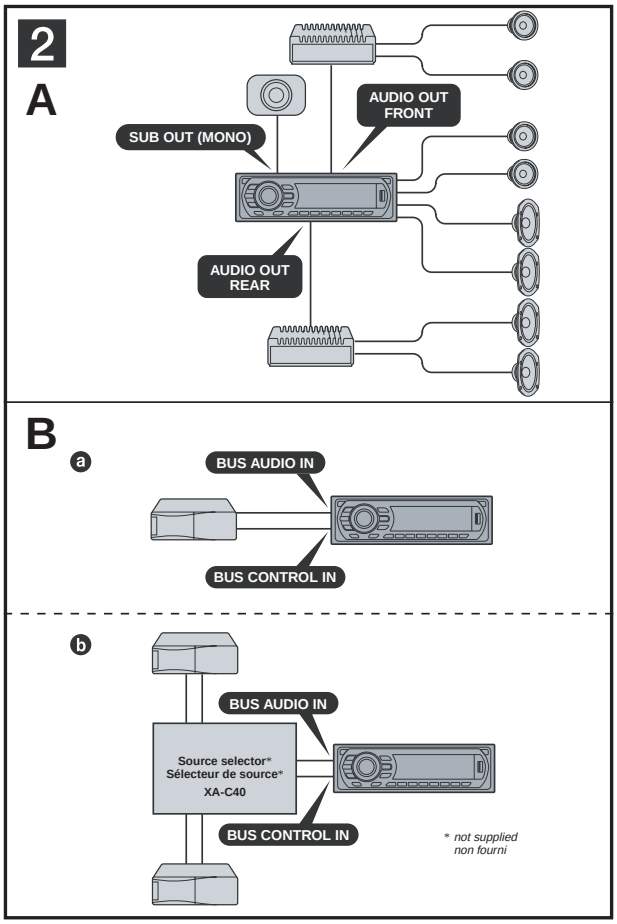
*1 *When an MD changer is connected.*
*2 *When a USB device is connected.*
*3 *When a CD/MD changer is connected.*
*4 *When an ATRAC Audio Device is connected.*
*5 *When an ATRAC CD is played.*
*6 *When an MP3/WMA/AAC is played.*
*7 *If the changer/USB is connected, the operation is different, see page 12.*
*8 *When playing back on this unit and a USB device.*

Notes
- *When ejecting/inserting a disc, keep any USB devices disconnected to avoid damage to the disc.*
- *If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.*

Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander" on page 15.

About USB cap
When not using the USB terminal (6), use the supplied USB cap to prevent dust or dirt entering. Keep the USB cap out of the reach of children to prevent accidental swallowing.

• CONNECTIONS
• CDX-GT610U



Connection example 2

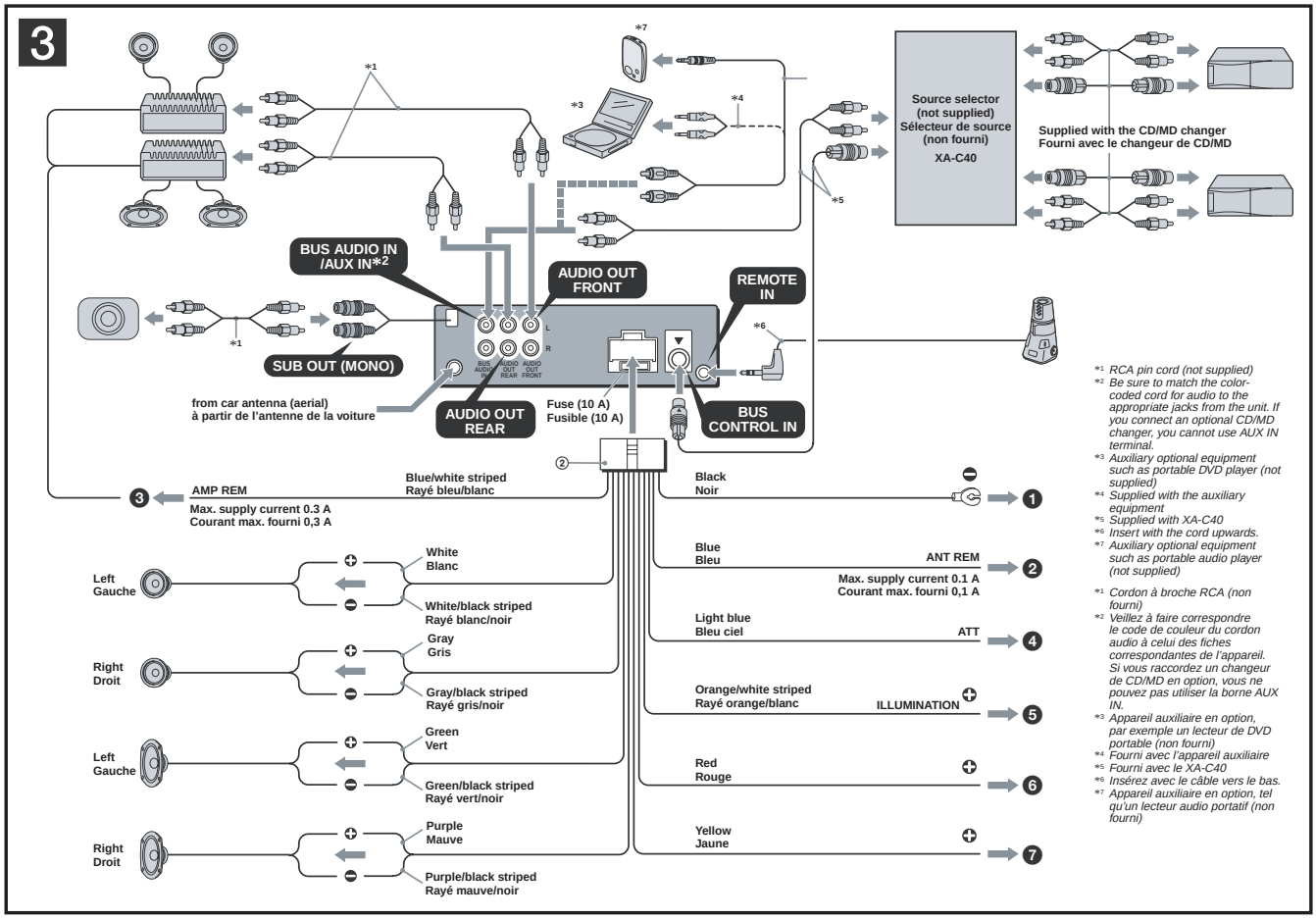
***Notes* (2-A)**
- *Be sure to connect the ground (earth) lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

***Tip* (2-B-b)**
For connecting two or more CD/MD changers, the source selector XA-C40 (not supplied) is necessary.

Exemple de raccordement 2

***Remarques* (2-A)**
- *Raccordez d'abord le câble de mise à la masse avant de raccorder l'amplificateur.*
- *L'alarme est émise uniquement lorsque l'amplificateur intégré est utilisé.*

***Conseil* (2-B-b)**
Dans le cas du raccordement de deux changeurs de CD/MD ou plus, le sélecteur de source XA-C40 (non fourni) est requis.



*1 *RCA pin cord (not supplied)*
*2 *Be sure to match the color-coded cord for audio to the appropriate jacks from the unit. If you connect an optional CD/MD changer, you cannot use AUX IN terminal.*
*3 *Auxiliary optional equipment such as portable DVD player (not supplied)*
*4 *Supplied with the auxiliary equipment*
*5 *Supplied with XA-C40*
*6 *Insert with the cord upwards.*
*7 *Auxiliary optional equipment such as portable audio player (not supplied)*

*1 *Cordon à broche RCA (non fourni)*
*2 *Veillez à faire correspondre le code de couleur du cordon audio à celui des fiches correspondantes de l'appareil. Si vous raccordez un changeur de CD/MD en option, vous ne pouvez pas utiliser la borne AUX IN.*
*3 *Appareil auxiliaire en option, par exemple un lecteur de DVD portable (non fourni)*
*4 *Fourni avec l'appareil auxiliaire*
*5 *Fourni avec le XA-C40*
*6 *Insérez avec le câble vers le bas.*
*7 *Appareil auxiliaire en option, tel qu'un lecteur audio portatif (non fourni)*

Connection diagram 3

❶ **To a metal surface of the car**
First connect the black ground (earth) lead, then connect the yellow and red power supply leads.

❷ **To the power antenna (aerial) control lead or power supply lead of antenna (aerial) booster**
Notes
- *It is not necessary to connect this lead if there is no power antenna (aerial) or antenna (aerial) booster, or with a manually-operated telescopic antenna (aerial).*
- *When your car has a built-in FM/AM antenna (aerial) in the rear/side glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ **To the interface cable of a car telephone**

❺ **To a car's illumination signal**
Be sure to connect the black ground (earth) lead to a metal surface of the car first.

❻ **To the +12 V power terminal which is energized in the accessory position of the ignition switch**
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black ground (earth) lead to a metal surface of the car first.*
- *When your car has a built-in FM/AM antenna (aerial) in the rear/side glass, see "Notes on the control and power supply leads."*

❼ **To the +12 V power terminal which is energized at all times**
Be sure to connect the black ground (earth) lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power antenna (aerial) control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna (aerial) in the rear/side glass, connect the power antenna (aerial) control lead (blue) or the accessory power supply lead (red) to the power terminal of the existing antenna (aerial) booster. For details, consult your dealer.*
- *A power antenna (aerial) without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power supply lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground (earth) lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Schéma de raccordement 3

❶ **À un point métallique de la voiture**
Branchez d'abord le câble de mise à la masse noir et, ensuite, les câbles d'entrée d'alimentation jaune et rouge.

❷ **Vers le câble de commande d'antenne électrique ou le câble d'alimentation de l'amplificateur d'antenne**
Remarques
- *Il n'est pas nécessaire de raccorder ce câble s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❸ **Au niveau de AMP REMOTE IN de l'amplificateur de puissance en option**
Ce raccordement s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.

❹ **Vers le cordon de liaison d'un téléphone de voiture**

❺ **Vers le connecteur du signal d'éclairage de la voiture**
Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.

❻ **À la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires**
Remarques
- *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est alimentée en permanence.*
  Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❼ **À la borne +12 V qui est alimentée en permanence**
Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.

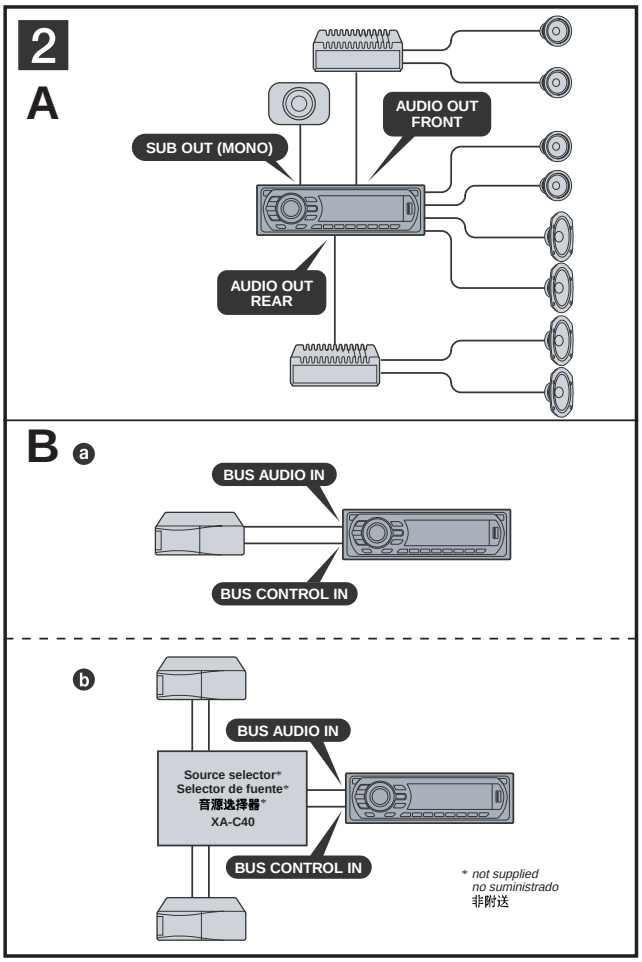
Remarques sur les câbles de commande et d'alimentation
- *Le câble de commande d'antenne électrique (bleu) fournit une alimentation de + 12 V CC lorsque vous mettez la radio sous tension.*
- *Lorsque votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, raccordez le câble de commande d'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre détaillant.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Raccordement pour la conservation de la mémoire
Lorsque le câble d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité électrique adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleurs au châssis de la voiture et ne raccordez pas les bornes des haut-parleurs droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de mise à la masse de cet appareil à la borne négative (–) du haut-parleur.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout problème de fonctionnement, n'utilisez pas les câbles des haut-parleurs intégrés installés dans votre voiture si l'appareil partage un câble négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Remarque sur le raccordement
Si les haut-parleurs et l'amplificateur ne sont pas raccordés correctement, le message « FAILURE » s'affiche. Dans ce cas, assurez-vous que les haut-parleurs et l'amplificateur sont bien raccordés.

• CDX-GT660U: E, Chinese model/GT660US



Connection example 2

***Notes* (2-A)**
- *Be sure to connect the ground (earth) lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

***Tip* (2-B-b)**
For connecting two or more CD/MD changers, the source selector XA-C40 (not supplied) is necessary.

Ejemplo de conexiones 2

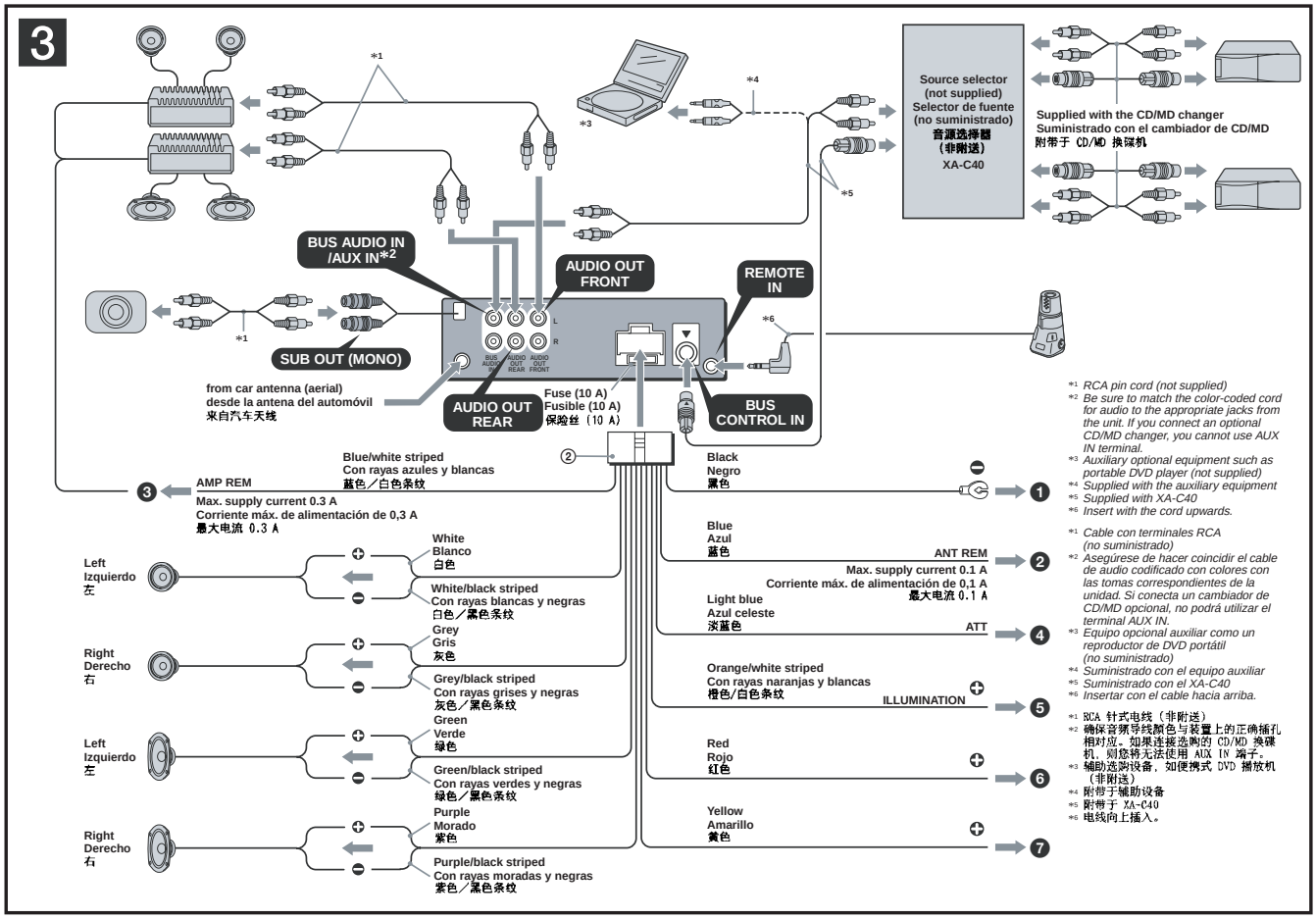
***Notas* (2-A)**
- *Asegúrese de conectar primero el cable de conexión a masa antes de realizar la conexión del amplificador.*
- *La alarma sonará únicamente si se utiliza el amplificador incorporado.*

***Sugerencia* (2-B-b)**
Si desea conectar dos o más cambiadores de CD/MD, necesitará el selector de fuente XA-C40 (no suministrado).

线路连接图例 2

注 (2-A)
- 务必在连接放大器之前连接接地线。
- 只有在使用内置的放大器时，警报才会发出声响。

提示（2-B-b）
若要连接 2 台或更多 CD/MD 换碟机，必须使用音源选择器 XA-C40（非附送）。



*1 *RCA pin cord (not supplied)*
*2 *Be sure to match the color-coded cord for audio to the appropriate jacks from the unit. If you connect an optional CD/MD changer, you cannot use AUX IN terminal.*
*3 *Auxiliary optional equipment such as portable DVD player (not supplied)*
*4 *Supplied with the auxiliary equipment*
*5 *Supplied with XA-C40*
*6 *Insert with the cord upwards.*

*1 *Cable con terminales RCA (no suministrado)*
*2 *Asegúrese de hacer coincidir el cable de audio codificado con colores con las tomas correspondientes de la unidad. Si conecta un cambiador de CD/MD opcional, no podrá utilizar el terminal AUX IN.*
*3 *Equipo opcional auxiliar como un reproductor de DVD portátil (no suministrado)*
*4 *Suministrado con el equipo auxiliar*
*5 *Suministrado con el XA-C40*
*6 *Insertar con el cable hacia arriba.*

*1 RCA 针式电线（非附送）
*2 确保音频导线颜色与装置上的正确插孔相对应。如果连接选购的 CD/MD 换碟机，则您将无法使用 AUX IN 端子。
*3 辅助选购设备，如便携式 DVD 播放机（非附送）
*4 附带于辅助设备
*5 附带于 XA-C40
*6 电线向上插入。

Connection diagram 3

❶ **To a metal surface of the car**
First connect the black ground (earth) lead, then connect the yellow and red power supply leads.

❷ **To the power antenna (aerial) control lead or power supply lead of antenna (aerial) booster**
Notes
- *It is not necessary to connect this lead if there is no power antenna (aerial) or antenna (aerial) booster, or with a manually-operated telescopic antenna (aerial).*
- *When your car has a built-in FM/AM antenna (aerial) in the rear/side glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ **To the interface cable of a car telephone**

❺ **To a car's illumination signal**
Be sure to connect the black ground (earth) lead to a metal surface of the car first.

❻ **To the +12 V power terminal which is energized in the accessory position of the ignition switch**
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black ground (earth) lead to a metal surface of the car first.*
- *When your car has a built-in FM/AM antenna (aerial) in the rear/side glass, see "Notes on the control and power supply leads."*

❼ **To the +12 V power terminal which is energized at all times**
Be sure to connect the black ground (earth) lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power antenna (aerial) control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna (aerial) in the rear/side glass, connect the power antenna (aerial) control lead (blue) or the accessory power supply lead (red) to the power terminal of the existing antenna (aerial) booster. For details, consult your dealer.*
- *A power antenna (aerial) without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power supply lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground (earth) lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Diagrama de conexión 3

❶ **A una superficie metálica del automóvil**
Conecte primero el cable de conexión a masa negro, y después los cables amarillo y rojo de entrada de alimentación.

❷ **Al cable de control de la antena motorizada o al cable de fuente de alimentación del amplificador de señal de la antena**
Notas
- *Si no se dispone de antena motorizada ni de amplificador de antena, o se utiliza una antena telescópica accionada manualmente, no será necesario conectar este cable.*
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❸ **A AMP REMOTE IN de un amplificador de potencia opcional**
Esta conexión es sólo para amplificadores. La conexión de cualquier otro sistema puede dañar la unidad.

❹ **Al cable de interfaz de un teléfono para automóvil**

❺ **A una señal de iluminación del automóvil**
Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.

❻ **Al terminal de alimentación de +12 V que recibe energía en la posición de accesorio del interruptor de la llave de encendido**
Notas
- *Si no hay posición de accesorio, conéctelo al terminal de alimentación (batería) de +12 V que recibe energía sin interrupción.*
  Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❼ **Al terminal de alimentación de +12 V que recibe energía sin interrupción**
Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.

Notas sobre los cables de control y de fuente de alimentación
- *El cable de control de la antena motorizada (azul) suministrará cc de + 12 V cuando conecte la alimentación del sintonizador.*
- *Si el automóvil dispone de una antena de FM/AM incorporada en el cristal trasero o lateral, conecte el cable de control de antena motorizada (azul) o el cable de entrada de alimentación auxiliar (rojo) al terminal de alimentación del amplificador de antena existente. Para obtener más información, consulte a su distribuidor.*
- *Con esta unidad no es posible utilizar una antena motorizada sin caja de relé.*

Conexión para protección de la memoria
Si conecta el cable de entrada de alimentación amarillo, el circuito de la memoria recibirá siempre alimentación, aunque apague el interruptor de encendido.

Notas sobre la conexión de los altavoces
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 Ω con la capacidad de potencia adecuada para evitar que se dañen.*
- *No conecte los terminales de altavoz al chasis del automóvil, ni conecte los terminales del altavoz derecho con los del izquierdo.*
- *No conecte el cable de conexión a masa de esta unidad al terminal negativo (–) del altavoz.*
- *No intente conectar los altavoces en paralelo.*
- *Conecte solamente altavoces pasivos. Si conecta altavoces activos (con amplificadores incorporados) a los terminales de altavoz, puede dañar la unidad.*
- *Para evitar fallas de funcionamiento, no utilice los cables de altavoz incorporados instalados en el automóvil si la unidad comparte un cable negativo común (–) para los altavoces derecho e izquierdo.*
- *No conecte los cables de altavoz de la unidad entre sí.*

Nota sobre la conexión
Si el altavoz y el amplificador no están conectados correctamente, aparecerá "FAILURE" en la pantalla. Si es así, compruebe la conexión de ambos dispositivos.

线路连接图 3

❶ **至汽车金属表面**
首先连接黑色接地导线，然后连接黄色和红色电源输入导线。

❷ **至电动天线控制导线或天线升缩放大器的电源导线**
注
- 如果没有电动天线或天线升缩器，或有手动伸缩式天线，则无需连接此导线。
- 若汽车的后/侧玻璃内有内置 FM/AM 天线，请参阅“关于控制导线和电源导线的注意事项”。

❸ **至选购的功率放大器的 AMP REMOTE IN**
此连接仅适用于功率放大器。连接其它系统可能损坏本机。

❹ **至车载电话接口电缆**

❺ **至汽车照明信号**
必须首先将黑色接地导线连接至汽车的金属表面。

❻ **至 +12 V 电源端子，该端子在点火开关附件位置通电**
注
- 如果没有附件位置，则连接至 +12 V 电源（蓄电池）端子，该端子随时处于通电状态。
  确保首先将黑色接地导线连接至汽车金属表面。
- 若汽车的后/侧玻璃内有内置 FM/AM 天线，请参阅“关于控制导线和电源导线的注意事项”。

❼ **至 +12 V 电源端子，该端子随时处于通电状态**
确保首先将黑色接地导线连接至汽车金属表面。

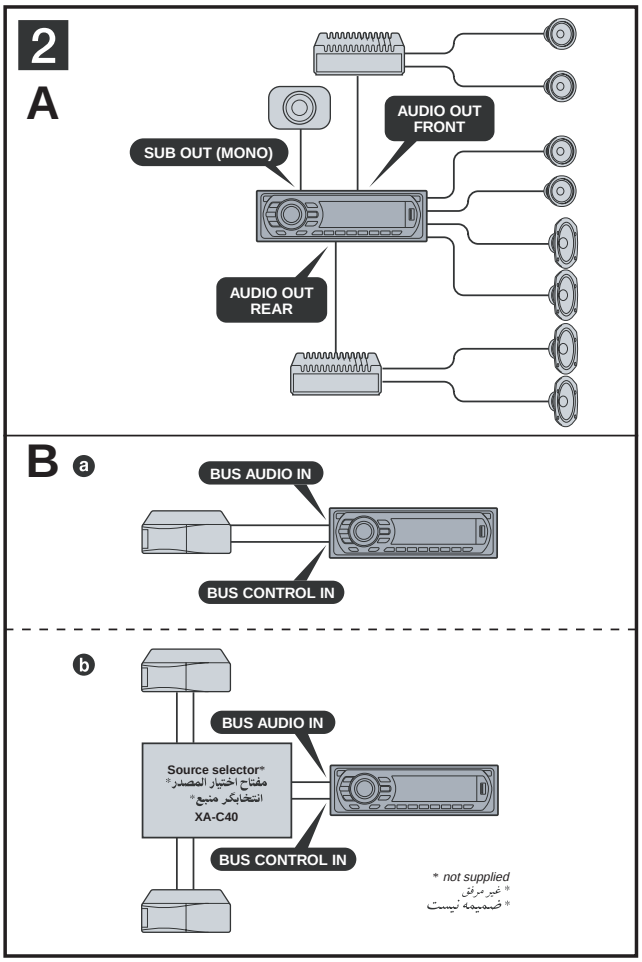
关于控制导线和电源导线的注意事项
- 接通调谐器电源时，电动天线的控制导线（蓝色）便能提供 +12 V 直流电。
- 当汽车的后/侧玻璃窗上有内置 FM/AM 天线时，请将电动天线控制线（蓝色）或辅助电源输入电线（红色）连接至现有天线升缩器上的电源端子上。详细说明，请与您的经销商联系。
- 本机不能使用不具备继电器盒的电动天线。

保持记忆的线路连接法
当连接了黄色的电源输入电线时，即使点火开关关闭，电源仍将对记忆电路供电。

关于扬声器连接的注意事项
- 连接扬声器之前，请关闭本机电源。
- 请使用阻抗为 4–8 欧姆且具有足够功率处理能力的扬声器，以免损坏。
- 勿将扬声器端子连接到汽车底盘上，或将右扬声器的端子与左扬声器的端子连接。
- 勿将本机的接地线连接到扬声器的负极（–）端子上。
- 扬声器不可并联连接。
- 请仅连接无源扬声器。将有源扬声器（具有内置放大器）连接到扬声器端子可能会损坏本机。
- 若本机使用左、右扬声器的共用负极（–）电线，为了避免故障，切勿使用安装在汽车内的内置扬声器电线。
- 请勿将本机扬声器电线相互连接。

连接的注意事项
如果未正确连接扬声器和放大器，则显示屏上会出现“FAILURE”。这时，请确保扬声器和放大器连接正确。

• CDX-GT660U: Saudi Arabia model



Connection example 2

***Notes* (2-A)**
- *Be sure to connect the ground (earth) lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

***Tip* (2-B-b)**
For connecting two or more CD/MD changers, the source selector XA-C40 (not supplied) is necessary.

مثال على التوصيل 2

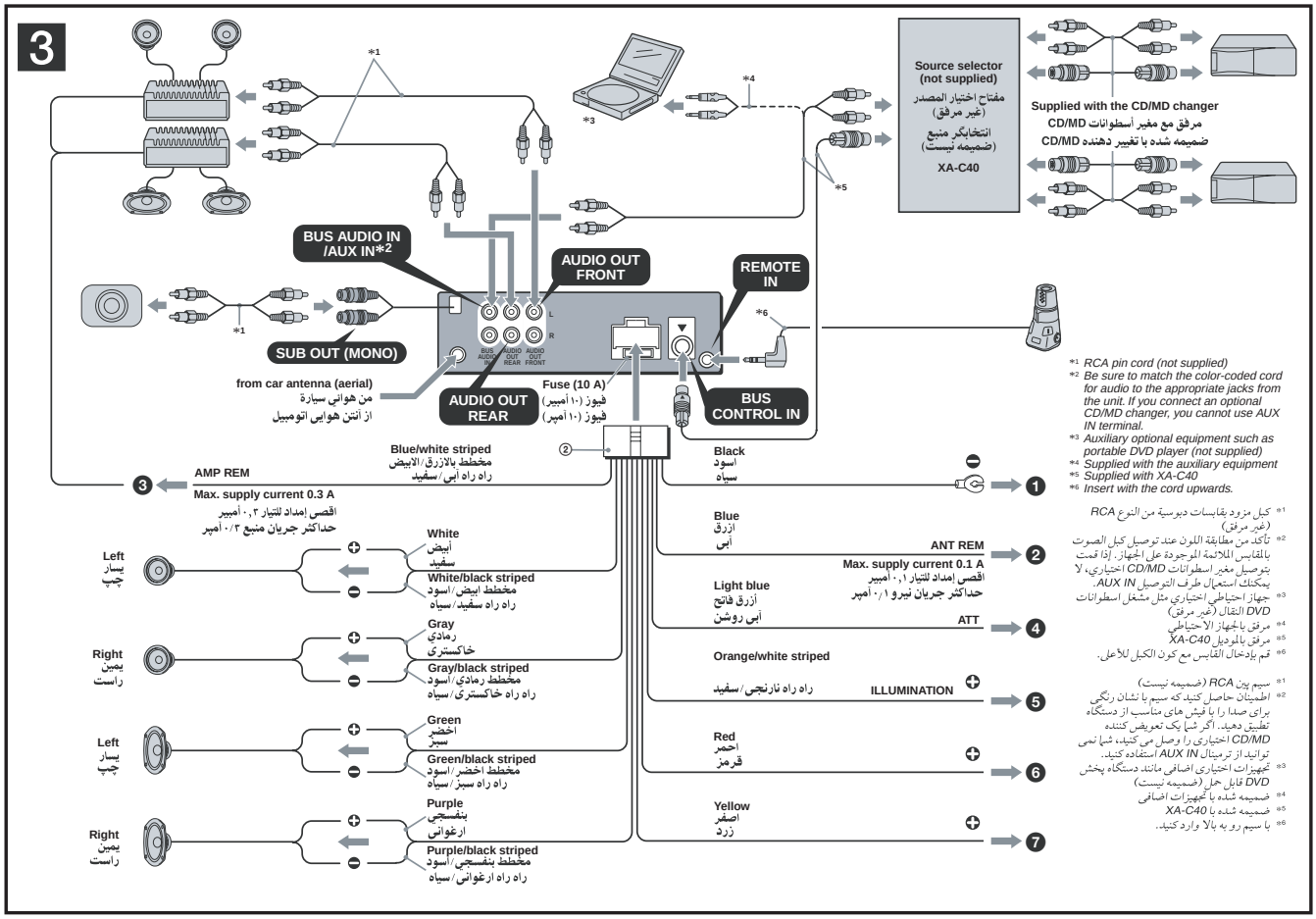
ملاحظات (2-A)
- *تأكد من توصيل سلك التأريض قبل توصيل المضخم.*
- *سيصدر صوت التنبيه فقط إذا تم استعمال مضخم الصوت الداخلي.*

توجيه (2-B-b)
لتوصيل جهازي تغيير أسطوانات CD/MD، ليس من الضروري استعمال مفتاح اختيار المصدر للموديل XA-C40 (غير مرفق).

نمونه اتصال 2

نکات (2-A)
- *اطمینان حاصل کنید که سیم زمین (ارث) را پیش از وصل کردن تقویت کننده وصل کنید.*
- *تنها در صورتی که تقویت کننده داخلی مورد استفاده قرار گیرد زنگ به صدا در خواهد آمد.*

اشاره (2-B-b)
برای وصل کردن دو تغییر دهنده CD/MD یا بیشتر، انتخابگر منبع XA-C40 (ضمیمه نیست) ضروری است.



Connection diagram 3

❶ **To a metal surface of the car**
First connect the black ground (earth) lead, then connect the orange/white stripped, yellow, and red power input leads.

❷ **To the power antenna (aerial) control lead or power supply lead of antenna (aerial) booster amplifier**
Notes
- *It is not necessary to connect this lead if there is no power antenna (aerial) or antenna (aerial) booster, or with a manually-operated telescopic antenna (aerial).*
- *When your car has a built-in FM/AM antenna (aerial) in the rear/side glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ **To the interface cable of a car telephone**

❺ **To a car's illumination signal**
Be sure to connect the black ground (earth) lead to a metal surface of the car first.

❻ **To the +12 V power terminal which is energized in the accessory position of the ignition key switch**
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black ground (earth) lead to a metal surface of the car first.*
- *When your car has a built-in FM/AM antenna (aerial) in the rear/side glass, see "Notes on the control and power supply leads."*

❼ **To the +12 V power terminal which is energized at all times**
Be sure to connect the black ground (earth) lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power antenna (aerial) control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna (aerial) in the rear/side glass, connect the power antenna (aerial) control lead (blue) or the accessory power supply lead (red) to the power terminal of the existing antenna (aerial) booster. For details, consult your dealer.*
- *A power antenna (aerial) without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground (earth) lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

مخطط التوصيل 3

❶ **إلى سطح نقطة معدنية في السيارة**
قم أولاً بتوصيل سلك التأريض الأسود، ومن ثم صل سلكي ادخال التيار الأبيض والأحمر المخططين بخط أبيض/ برتقالي.

❷ **إلى سلك التحكم في الهوائي الآلي أو سلك امداد الطاقة بمضخم معزز الهوائي**
ملاحظات
- *ليس من الضروري توصيل هذا السلك إذا لم يتوفر هوائي آلي أو معزز هوائي، أو هوائي تلسكوبي يعمل يدوياً.*
- *عندما تكون سيارتك تتضمن هوائي FM/AM داخلي في الزجاج الجانبي الخلفي، راجع قسم "ملاحظات حول أسلاك التحكم وامداد التيار".*

❸ **للتوصيل إلى AMP REMOTE IN لمضخم القدرة الاختياري**
هذه التوصيلة مخصصة فقط لأجهزة تضخيم الصوت. توصيل أي جهاز آخر قد يضر بالوحدة.

❹ **إلى كبل ربط هاتف السيارة**

❺ **إلى اشارة اضاءة السيارة**
تأكد أولاً من توصيل سلك التأريض الأسود بسطح نقطة معدنية في السيارة.

❻ **إلى طرف التيار + ١٢ فولت الذي يسري فيه التيار عندما يكون مفتاح تشغيل المحرك في وضع الكماليات**
ملاحظات
- *عند عدم وجود وضع الكماليات، قم بالتوصيل إلى طرف التيار + ١٢ فولت والذي يولد طاقة في جميع الأوقات. تأكد أولاً من توصيل السلك الأسود بسطح نقطة معدنية في السيارة.*
- *عندما تكون سيارتك تتضمن هوائي FM/AM داخلي في الزجاج الجانبي الخلفي، راجع قسم "ملاحظات حول أسلاك التحكم وامداد التيار".*

❼ **إلى طرف توصيل التيار + ١٢ فولت الذي يسري فيه التيار باستمرار**
تأكد أولاً من توصيل السلك الأسود بسطح نقطة معدنية في السيارة.

ملاحظات حول أسلاك التحكم وامداد التيار
- *سلك التحكم في الهوائي الآلي (أزرق) يقوم بإمداد تيار مباشر + ١٢ فولت عندما تقوم بتشغيل الموالف.*
- *عندما تكون سيارتك تتضمن هوائي FM/AM داخلي في الزجاج الجانبي الخلفي، من الضروري توصيل سلك التحكم في الهوائي الآلي (أزرق) أو سلك دخل قدرة الكماليات (أحمر) إلى طرف توصيل القدرة لمعزز الهوائي الموجود أصلاً. لمزيد من التفاصيل، قم باستشارة الوكيل لديك.*
- *لا يمكن استعمال هوائي آلي بدون صندوق ترحيل مع هذه الوحدة.*

توصيلة حفظ الذاكرة
عند توصيل سلك التيار الأصفر، يتم امداد التيار بصورة مستمرة الى دائرة الذاكرة حتى أثناء إيقاف مفتاح تشغيل المحرك.

ملاحظات حول توصيل السماعات
- *قبل توصيل السماعات، أوقف تشغيل الجهاز.*
- *استعمل سماعات بمعاوقة من ٤ إلى ٨ أوم وسعة تحمّل قدرة مناسبة لتفادي الاصابة بضرر.*
- *لا تقم بتوصيل أطراف توصيل نظام السماعات بهيكل السيارة، ولا تقم بتوصيل أطراف توصيل السماعة اليمنى بأطراف توصيل السماعة اليسرى.*
- *لا تقم بتوصيل سلك التأريض لهذا الجهاز إلى الطرف السالب (–) لسماعة التكبير.*
- *لا تحاول إلى توصيل السماعات بشكل متواز.*
- *قم بتوصيل سماعات التكبير الغير فعالة. توصيل سماعات التكبير الفعالة (باستعمال مضخم صوت داخلي) إلى أطراف سماعات التكبير قد يلحق أضرار بالوحدة.*
- *لتفادي الأعطال، لا تستعمل أسلاك سماعة التكبير الداخلية المركبة في سيارتك اذا كانت الوحدة تقاسم طرف سالب (–) عام للسماعات اليمنى واليسرى.*
- *لا تقم بتوصيل أسلاك سماعة التكبير بعضهما البعض.*

ملاحظة حول التوصيل
إذا لم يتم توصيل السماعة ومضخم الصوت بشكل صحيح، تظهر العبارة "FAILURE" على العارضة. في هذه الحالة، تأكد من توصيل السماعة ومضخم الصوت بشكل صحيح.

نمودار اتصال 3

❶ **به یک سطح فلزی اتومبیل**
ابتدا سیم سیاه زمین را وصل کنید، سپس سیم های ورودی زرد و قرمز را وصل کنید.

❷ **به سیم کنترل آنتن هوایی برقی یا سیم منبع برق تقویت کننده هوایی**
نکات
- *در صورتی که آنتن هوایی برقی یا تقویت کننده هوایی وجود ندارد، یا با یک آنتن هوایی تلسکوپی دستی وصل کردن این سیم ضروری نیست.*
- *هنگامی که اتومبیل شما دارای یک آنتن هوایی FM/AM در شیشه عقبی/ کناری می باشد، " نکات در مورد سیم های کنترل و منبع برق" را ملاحظه نمایید.*

❸ **به AMP REMOTE IN یک تقویت کننده نیرو اختیاری**
این اتصال تنها برای تقویت کننده ها است. وصل کردن هر سیستم دیگری ممکن است دستگاه را خراب کند.

❹ **به کابل اینترفیس تلفن یک اتومبیل**

❺ **به سیگنال روشنایی یک اتومبیل**
اطمینان حاصل کنید که سیم سیاه زمین (ارث) را ابتدا به سطح فلزی اتومبیل وصل کنید.

❻ **به ترمینال برق + ۱۲ ولت که در موقعیت جانبی کلید احتراق نیرو می گیرد**
نکات
- *اگر هیچ موقعیت جانبی وجود ندارد، به ترمینال برق (باطری) +۱۲ ولت که همواره نیرو می گیرد وصل کنید. اطمینان حاصل کنید که ابتدا سیم سیاه زمین را به سطح فلزی اتومبیل وصل کنید.*
- *هنگامی که اتومبیل شما دارای یک آنتن هوایی FM/AM در شیشه عقبی/ کناری می باشد، " نکات در مورد سیم های کنترل و منبع برق" را ملاحظه نمایید.*

❼ **به ترمینال برق +۱۲ ولت که همواره نیرو می گیرد**
اطمینان حاصل کنید که ابتدا سیم سیاه زمین را به سطح فلزی اتومبیل وصل کنید.

نکات در مورد سیم های کنترل و منبع برق
- *هنگامی که شما موج یاب را روشن می کنید سیم کنترل آنتن هوایی برقی (آبی) برق مستقیم ۱۲+ ولت را تامین می کند.*
- *هنگامی که اتومبیل شما دارای یک آنتن هوایی FM/AM در شیشه عقبی/ کناری می باشد، سیم کنترل آنتن هوایی برقی (آبی) یا سیم منبع برق جانبی (قرمز) را به ترمینال برق تقویت کننده آنتن هوایی موجود وصل کنید. برای جزئیات، با فروشنده خود مشورت نمایید.*
- *یک آنتن هوایی بدون یک ایستگاه تقویت نمی تواند با این دستگاه مورد استفاده قرار گیرد.*

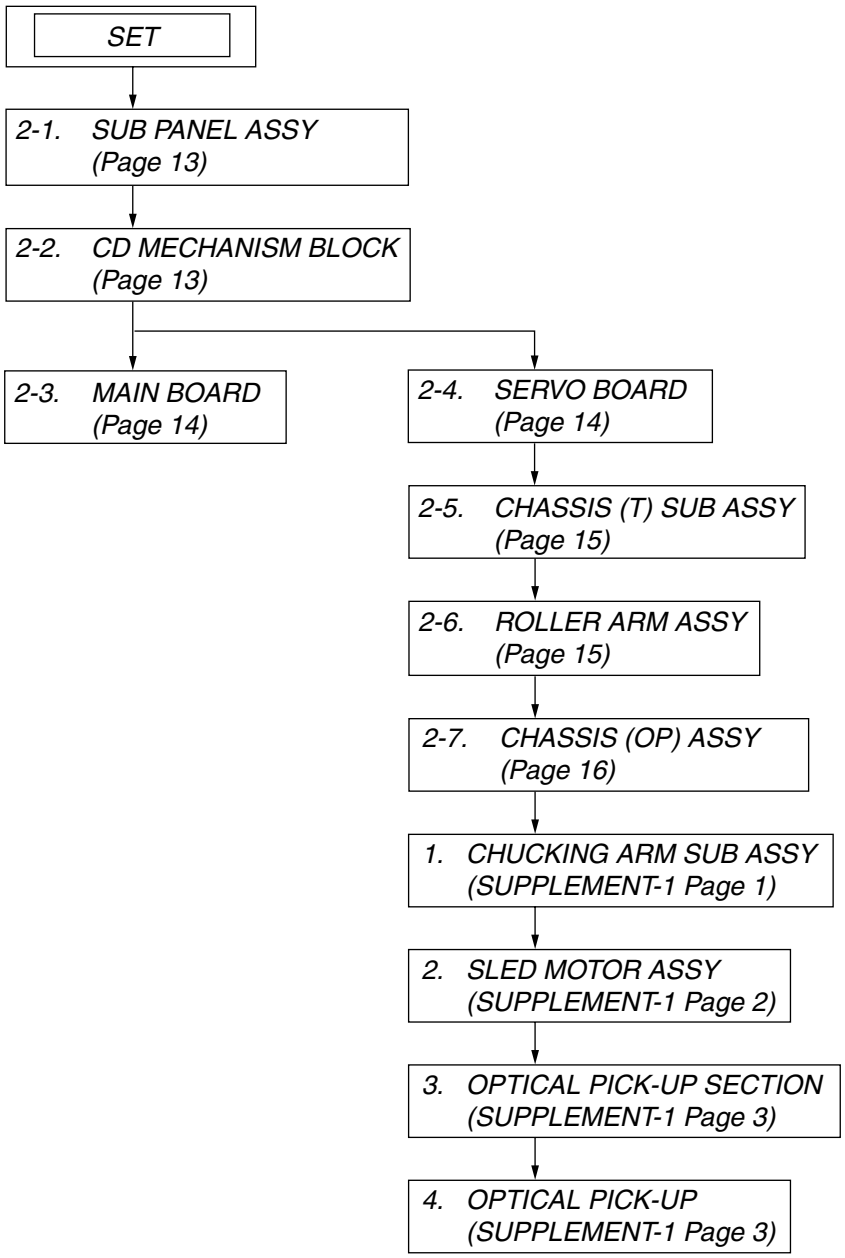
اتصال حفظ حافظه
هنگامی که سیم منبع برق زرد وصل می شود، برق همیشه به مدار حافظه حتی هنگامی که سوئیچ احتراق خاموش است تامین خواهد شد.

نکات در مورد اتصال بلندگو
- *پیش از وصل کردن بلندگوها، دستگاه را خاموش کنید.*
- *از بلندگوها با امپدانس ۴ تا ۸ اهم، و با ظرفیت بالای برق استفاده کنید تا از صدمه به آن جلوگیری کنید.*
- *ترمینال های بلندگو را به شاسی اتومبیل وصل نکنید، یا ترمینال های بلندگوهای راست را به ترمینال های بلندگوهای چپ وصل نکنید.*
- *سیم زمین این دستگاه را به ترمینال منفی (–) بلندگو وصل نکنید.*
- *سعی نکنید بلندگوها را بطور موازی وصل کنید.*
- *تنها بلندگوهای غیر فعال را وصل کنید. وصل کردن بلندگوهای فعال (با تقویت کننده های داخلی) به ترمینال های بلندگو ممکن است به دستگاه صدمه وارد کند.*
- *برای اجتناب از یک سوء عملکرد، از سیم های بلندگوی داخلی نصب شده در اتومبیل خود در صورتی که دستگاه دارای یک سیم منفی (–) مشترک برای بلندگوهای راست و چپ می باشد استفاده نکنید.*
- *سیم های بلندگوی دستگاه را به یکدیگر وصل نکنید.*

نکته در مورد اتصال
اگر بلندگو بطور صحیح وصل نشده باشد، "FAILURE" در صفحه نمایش ظاهر می شود. در چنین حالتی، اطمینان حاصل کنید که بلندگو بطور صحیح نصب شده است.

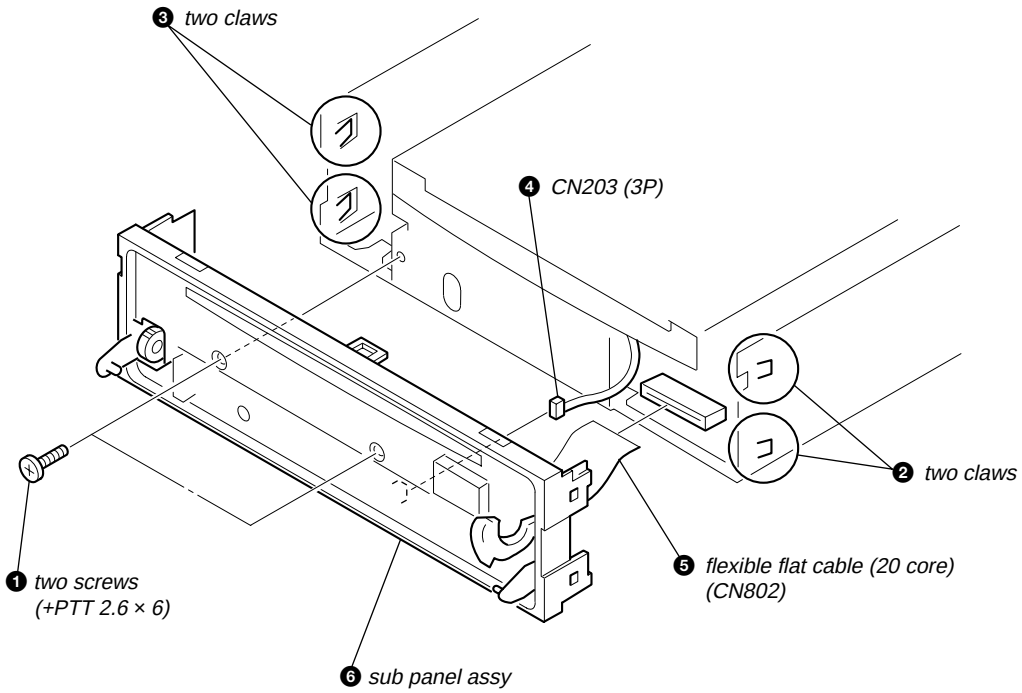
SECTION 2
DISASSEMBLY

Note: This set can be disassemble according to the following sequence.

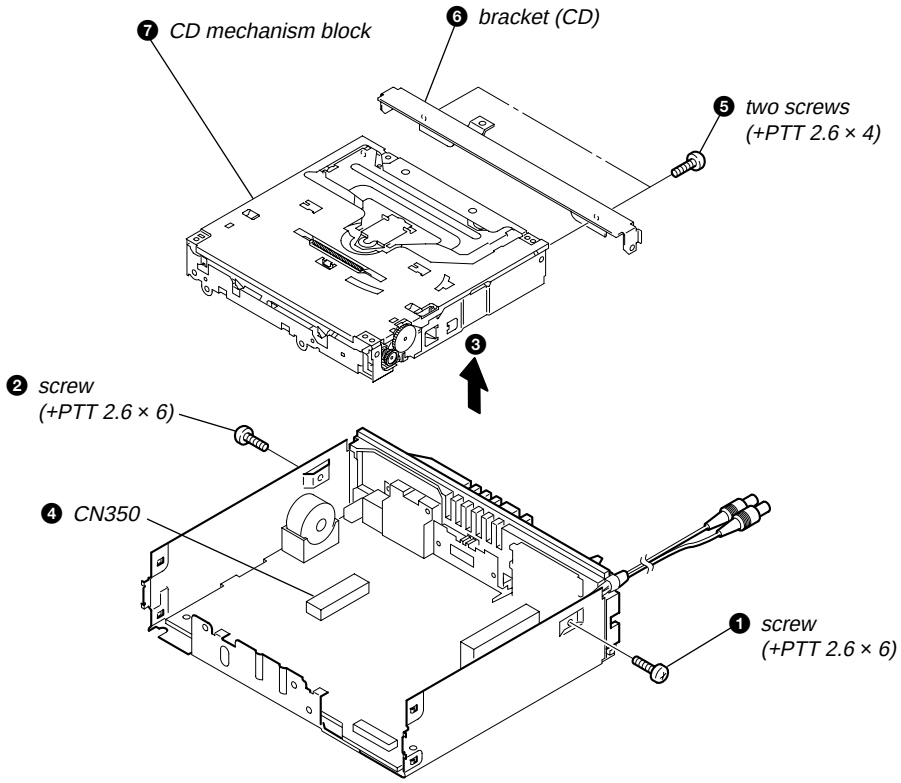

SET
2-1. SUB PANEL ASSY (Page 13)
2-2. CD MECHANISM BLOCK (Page 13)
2-3. MAIN BOARD (Page 14)
2-4. SERVO BOARD (Page 14)
2-5. CHASSIS (T) SUB ASSY (Page 15)
2-6. ROLLER ARM ASSY (Page 15)
2-7. CHASSIS (OP) ASSY (Page 16)
1. CHUCKING ARM SUB ASSY (SUPPLEMENT-1 Page 1)
2. SLED MOTOR ASSY (SUPPLEMENT-1 Page 2)
3. OPTICAL PICK-UP SECTION (SUPPLEMENT-1 Page 3)
4. OPTICAL PICK-UP (SUPPLEMENT-1 Page 3)

Note: Follow the disassembly procedure in the numerical order given.

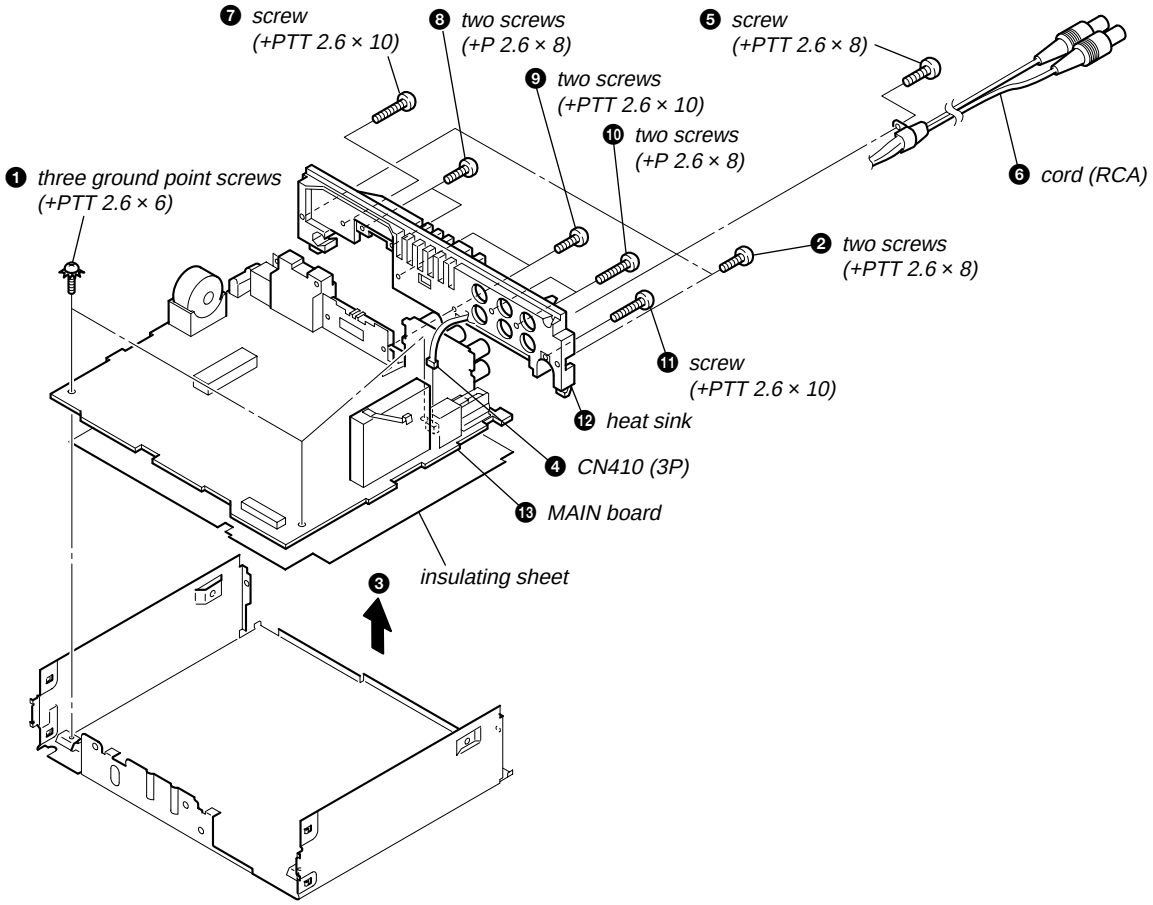
2-1. SUB PANEL ASSY



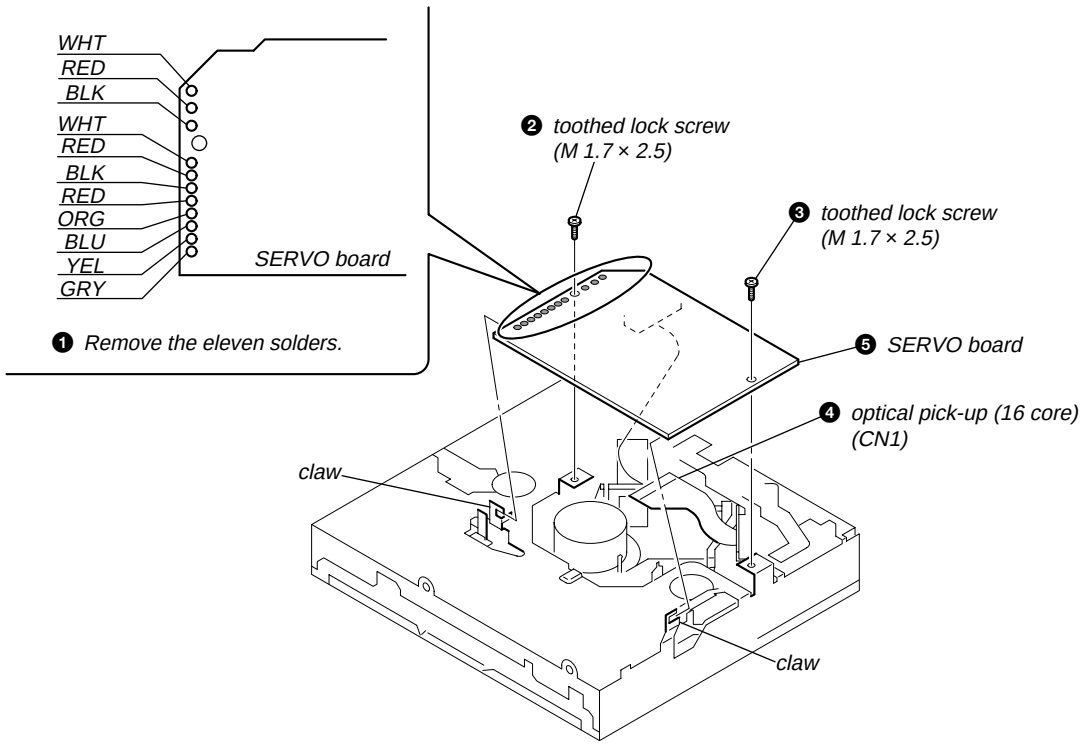
2-2. CD MECHANISM BLOCK



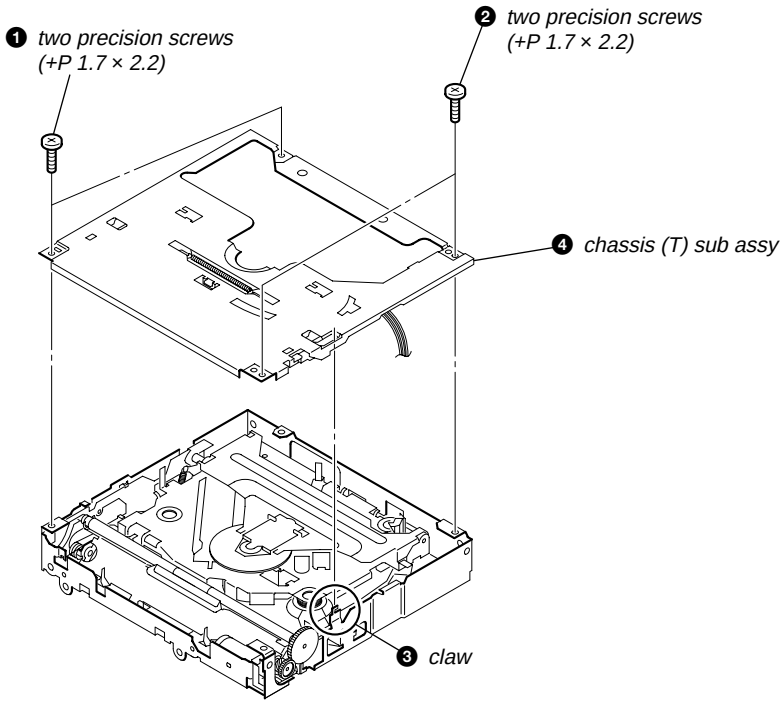
2-3. MAIN BOARD


❼ screw (+PTT 2.6 × 10)
❽ two screws (+P 2.6 × 8)
❺ screw (+PTT 2.6 × 8)
❾ two screws (+PTT 2.6 × 10)
❿ two screws (+P 2.6 × 8)
❻ cord (RCA)
❶ three ground point screws (+PTT 2.6 × 6)
❷ two screws (+PTT 2.6 × 8)
⓫ screw (+PTT 2.6 × 10)
⓬ heat sink
❹ CN410 (3P)
⓭ MAIN board
insulating sheet
❸

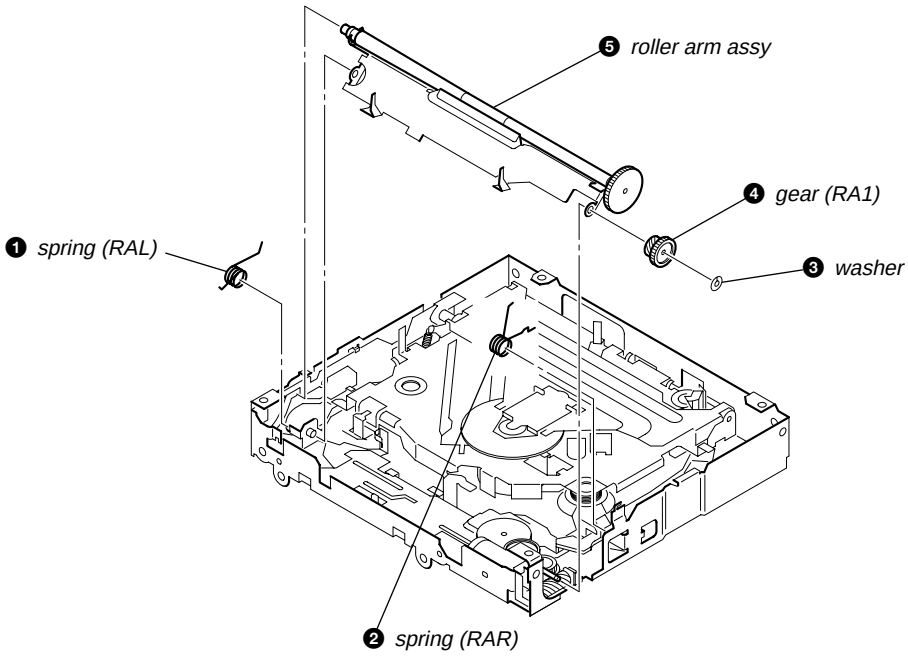
2-4. SERVO BOARD



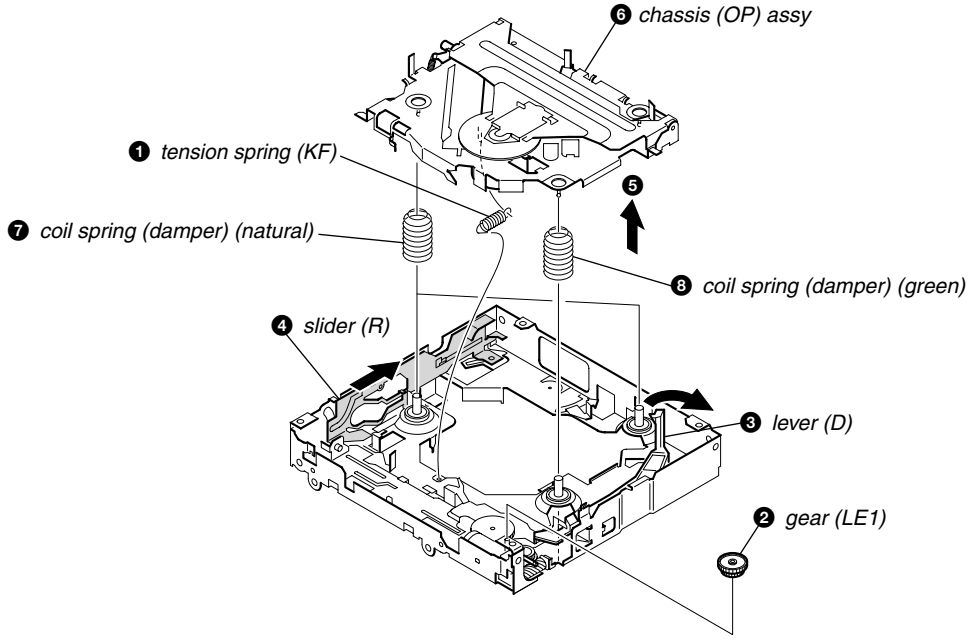
2-5. CHASSIS (T) SUB ASSY



2-6. ROLLER ARM ASSY



2-7. CHASSIS (OP) ASSY



SECTION 3
DIAGNOSIS FUNCTION

Description of the Diagnostics function:

1. Setting the Diag display mode

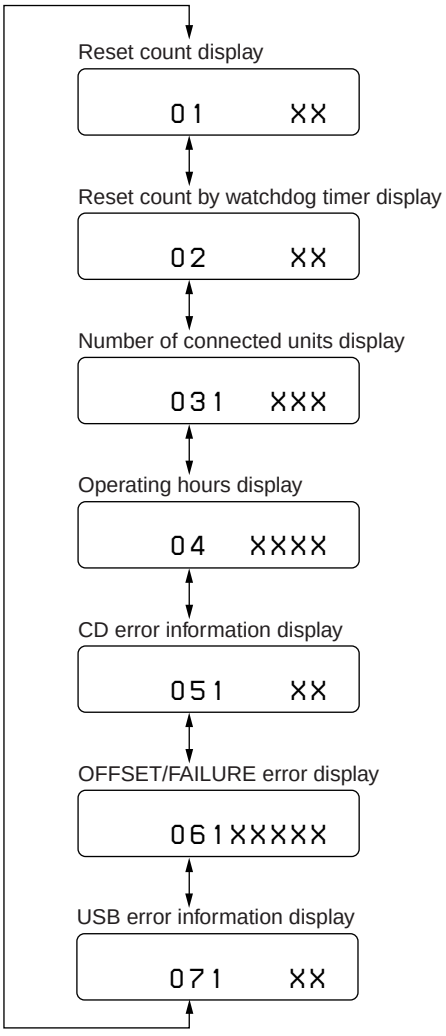
With the power off, press the [4] button, [5] button, and [4] button on the set body or the remote control (for more than 2 seconds) in turn.

2. Canceling the Diag display mode

During the Diag function mode, press the [OFF] button.

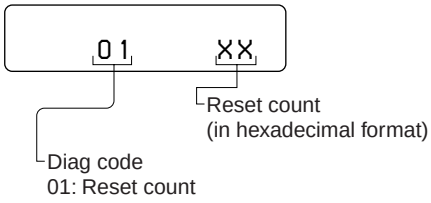
3. Initial display in the Diag display mode.

Just when the Diag mode is entered, “reset count” is displayed. The display mode is switched by each rotation of [SEEK +/▶▶ ▶▶I] or [SEEK – /I◀◀ ◀◀] keys.

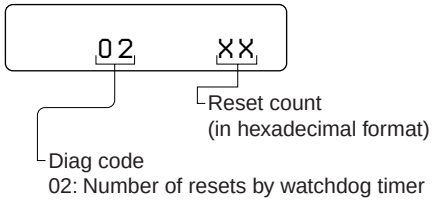


4. Contents of each display mode

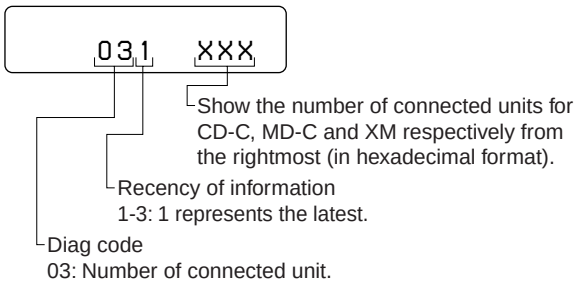
4-1. Reset count display mode



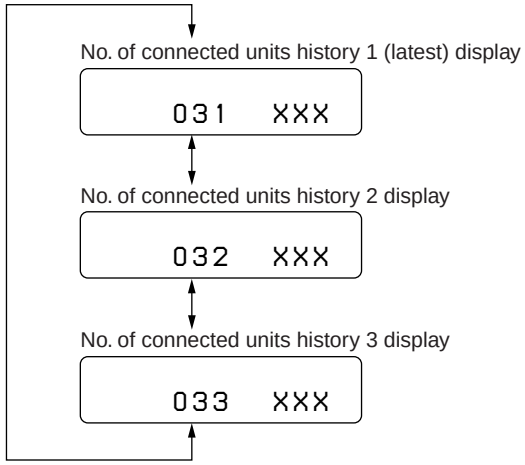
4-2. Reset count by watchdog timer display mode



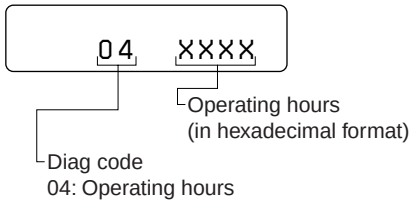
4-3. Number of connected units display mode


031 XXX
Show the number of connected units for CD-C, MD-C and XM respectively from the rightmost (in hexadecimal format).
Recency of information
1-3: 1 represents the latest.
Diag code
03: Number of connected unit.

The display mode is switched by each rotation of [2/GP/ALBM+] or [1/GP/ALBM–] keys during the number of connected units display mode.

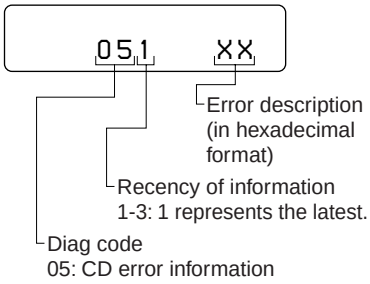

No. of connected units history 1 (latest) display
031 XXX
No. of connected units history 2 display
032 XXX
No. of connected units history 3 display
033 XXX

4-4. Operating hours display mode



4-5. CD error information display mode

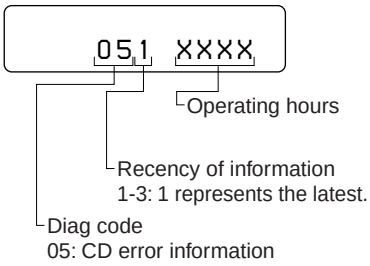
4-5-1. Error description



Error information

Indication	Description
1X	SERVO ERROR
3X	LOADING ERROR
4X	TRACK JUMP
5X	TEXT ERROR
FX	MECHA ERROR

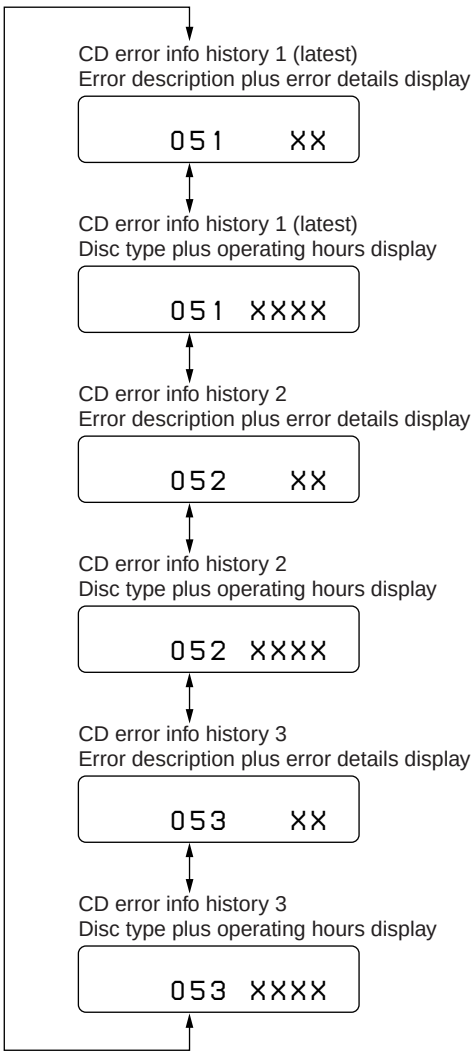
4-5-2. Disc type and operating hours



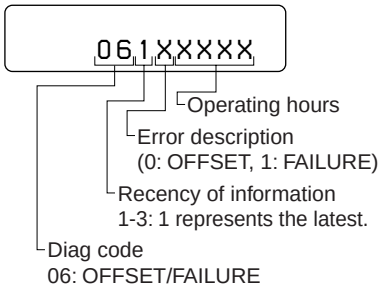
Disc type

Indication	Disc type
0	MP3
1	WMA
2	AAC
3	ATRAC
8	CD/DA
F	UNKNOWN

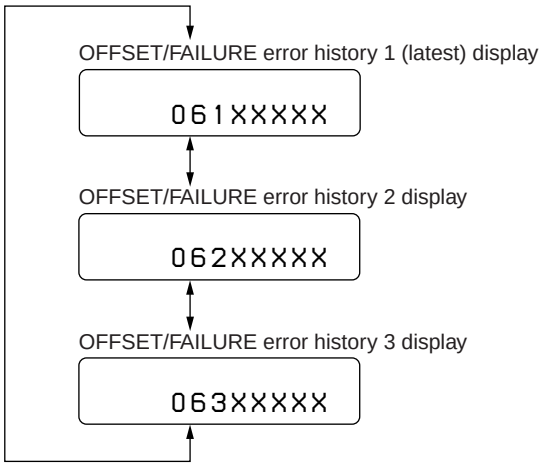
The display mode is switched by each rotation of 2/GP/ALBM+ or 1/GP/ALBM– keys during the CD error information display mode.


CD error info history 1 (latest)
Error description plus error details display
051 XX
CD error info history 1 (latest)
Disc type plus operating hours display
051 XXXX
CD error info history 2
Error description plus error details display
052 XX
CD error info history 2
Disc type plus operating hours display
052 XXXX
CD error info history 3
Error description plus error details display
053 XX
CD error info history 3
Disc type plus operating hours display
053 XXXX

4-6. OFFSET/FAILURE error display mode

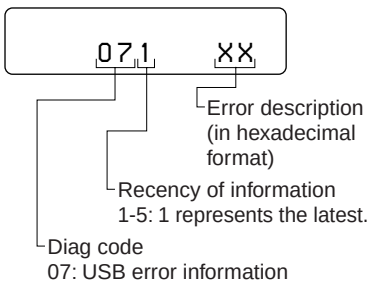


The display mode is switched by each rotation of 2/GP/ALBM+ or 1/GP/ALBM– keys during the OFFSET/FAILURE error display mode.



4-7. USB error information display mode

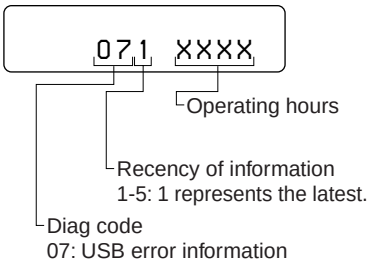
4-7-1. Error description



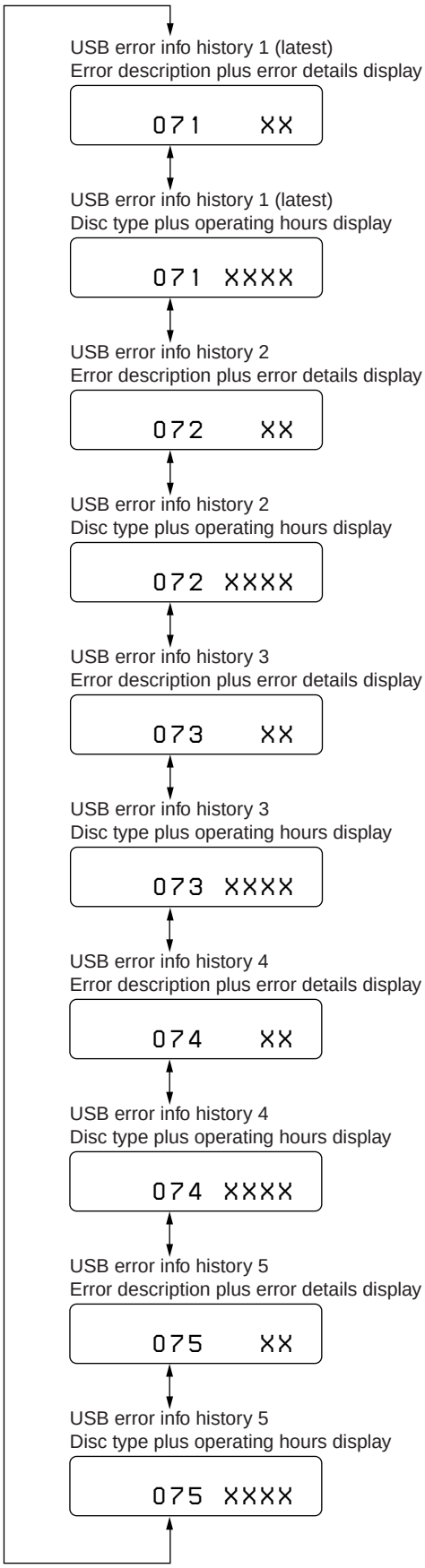
Error information

Indication	Description
15	DEVICE ERROR
17	FILE ERROR (NO MUSIC)
1E	POWER ON ERROR
1F	BOOT ERROR
3A	INVALID EJECT ERROR
43	READ ERROR
44	INVALID FORMAT FILE
FA	NOT SUPPORT DEVICE
FB	HUB NOT SUPPORT

4-7-2. Disc type and operating hours



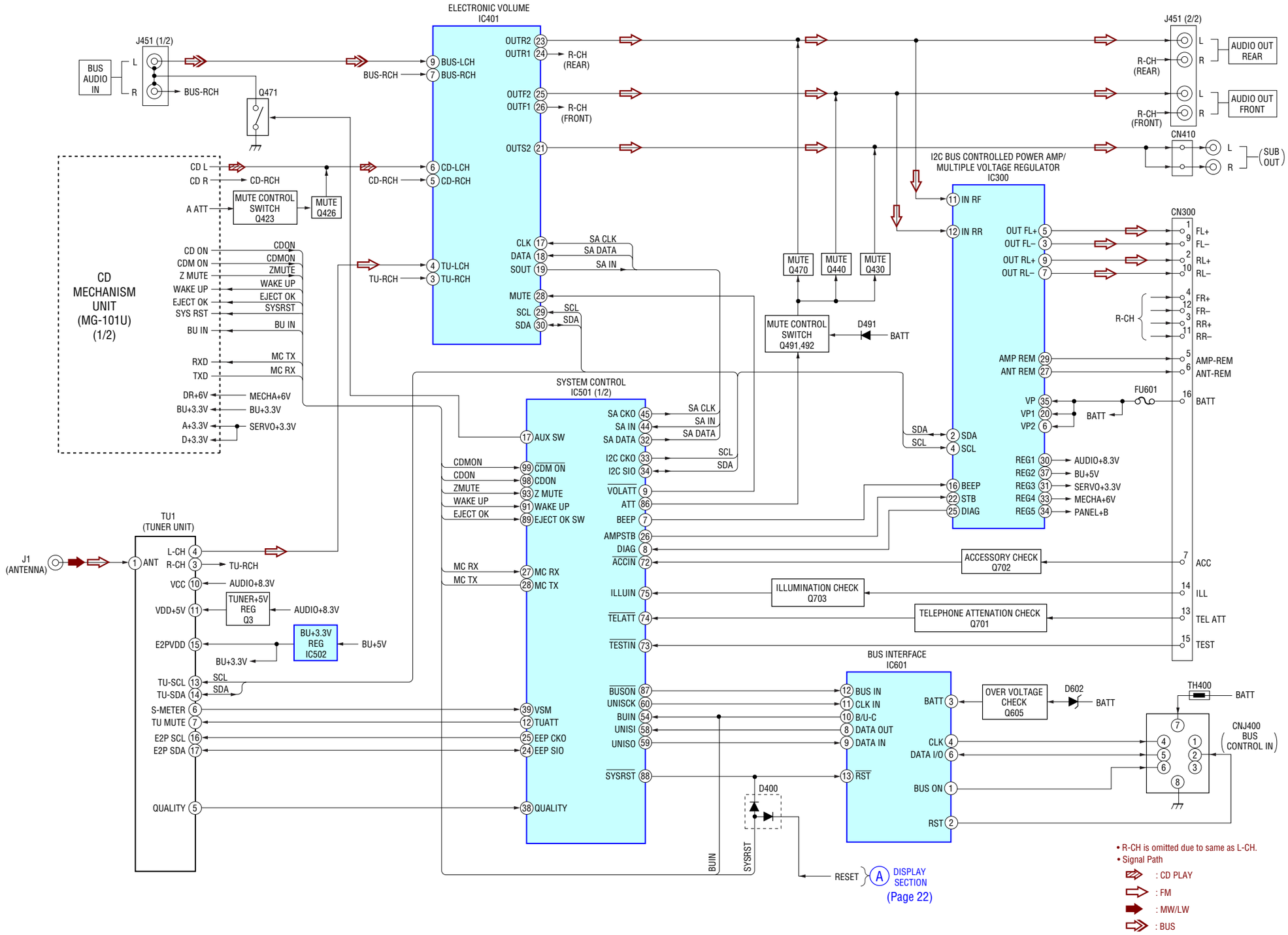
The display mode is switched by each rotation of 2/GP/ALBM+ or 1/GP/ALBM– keys during the CD error information display mode.


USB error info history 1 (latest)
Error description plus error details display
071 XX
USB error info history 1 (latest)
Disc type plus operating hours display
071 XXXX
USB error info history 2
Error description plus error details display
072 XX
USB error info history 2
Disc type plus operating hours display
072 XXXX
USB error info history 3
Error description plus error details display
073 XX
USB error info history 3
Disc type plus operating hours display
073 XXXX
USB error info history 4
Error description plus error details display
074 XX
USB error info history 4
Disc type plus operating hours display
074 XXXX
USB error info history 5
Error description plus error details display
075 XX
USB error info history 5
Disc type plus operating hours display
075 XXXX

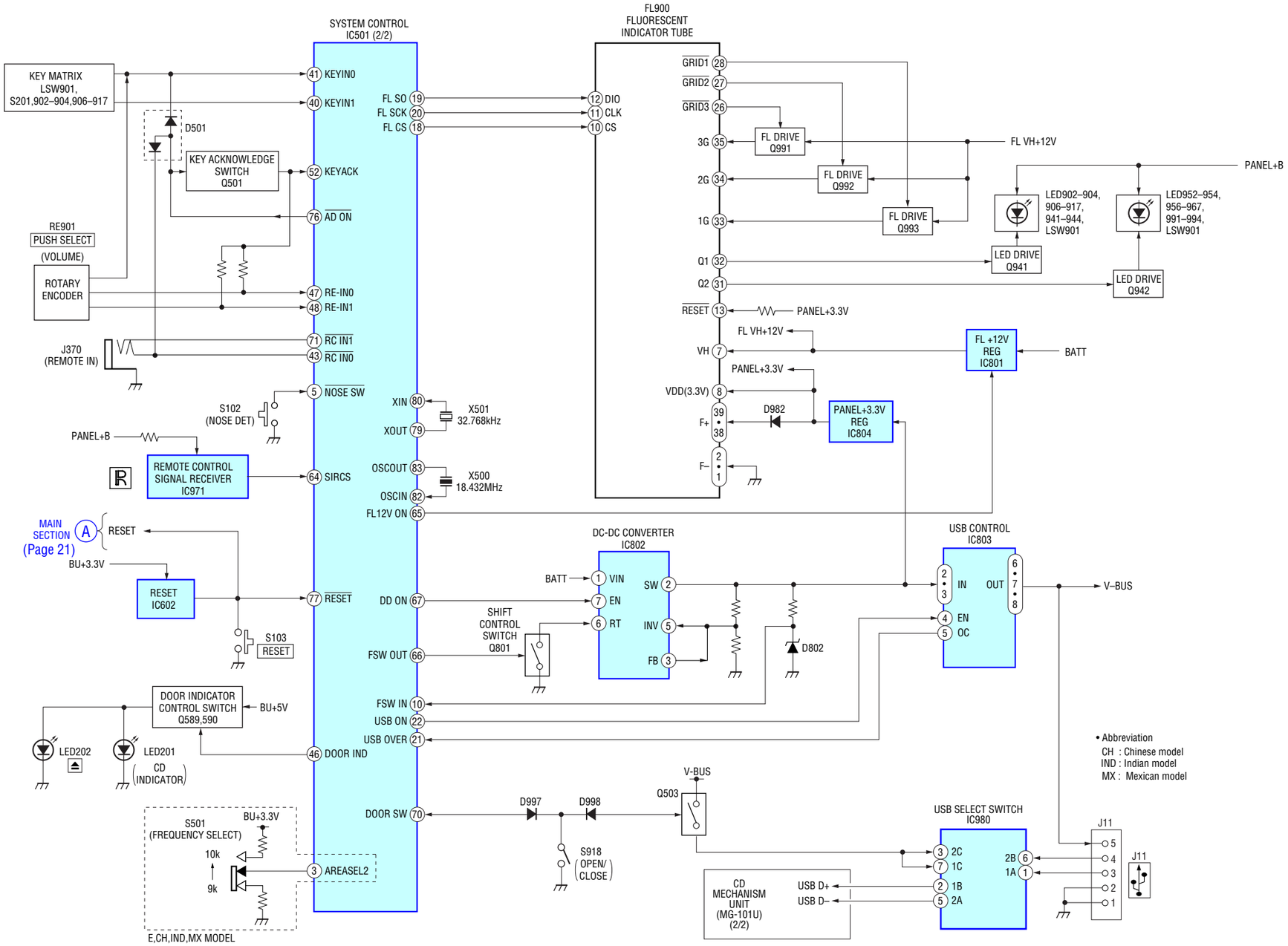
MEMO

SECTION 4
DIAGRAMS

4-1. BLOCK DIAGRAM — MAIN SECTION —



4-2. BLOCK DIAGRAM — DISPLAY SECTION —



• NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

- All capacitors are in μF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- ▬▬ : B+ Line.
- ▬ ▬ : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
  < > : CD PLAY
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD PLAY
  ⇨ : FM
  ➡ : AM
  ⇨ : BUS
- Abbreviation
  CH : Chinese model
  CND : Canadian model
  EA : Saudi Arabia model
  IND : Indian model
  MX : Mexican model

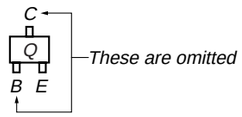
For printed wiring boards.

Note:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.



These are omitted

These are omitted

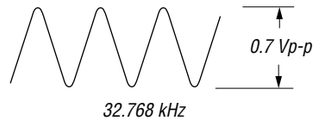
These are omitted

- Abbreviation
  CH : Chinese model
  CND : Canadian model
  EA : Saudi Arabia model
  IND : Indian model
  MX : Mexican model

• Waveforms

— MAIN Board —

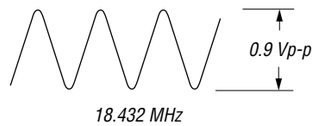
① IC501 ㊽ (XIN)



32.768 kHz

0.2 V/DIV, 20 μsec/DIV

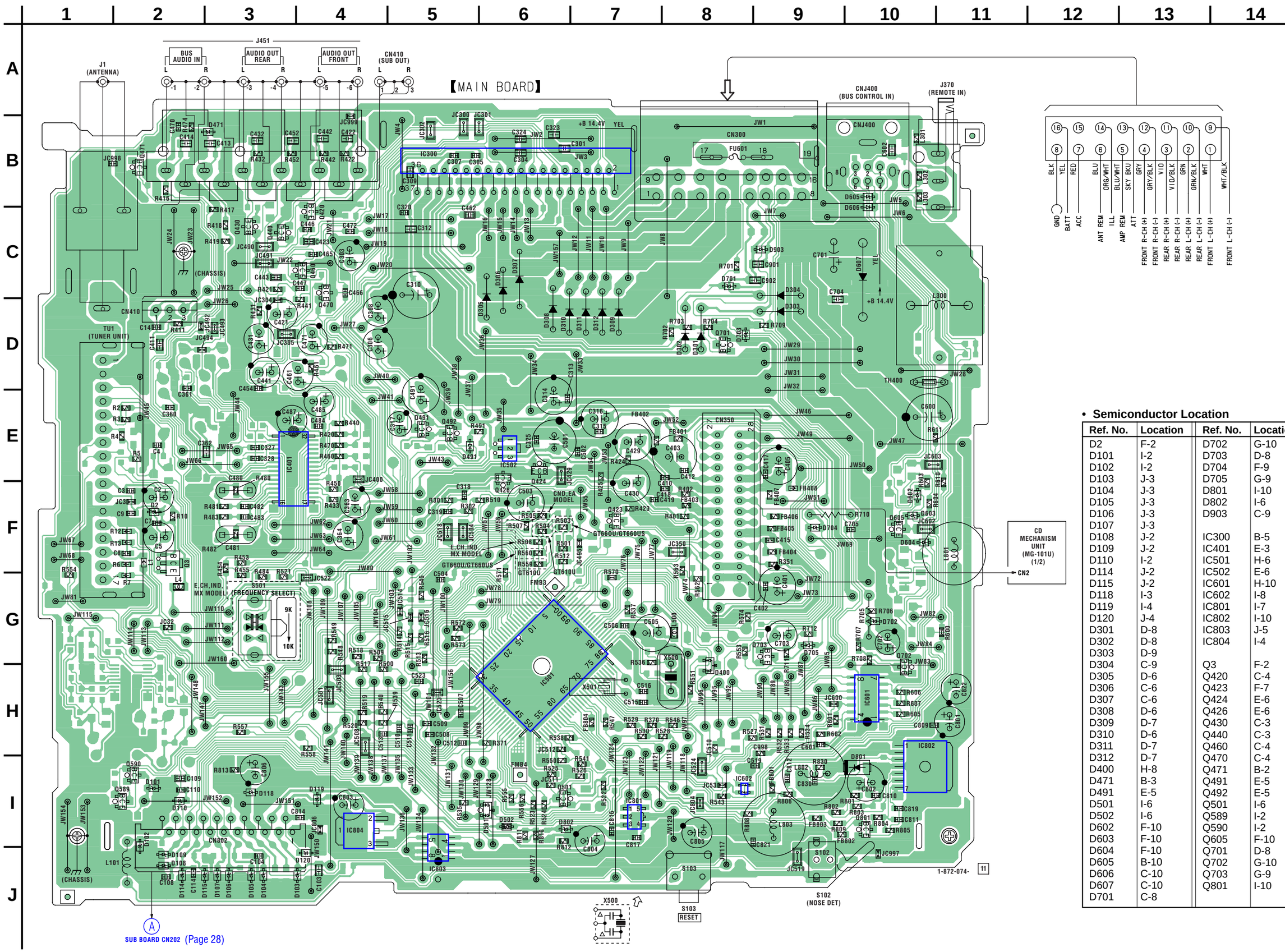
② IC501 ㊾ (OSC IN)



18.432 MHz

0.5 V/DIV, 0.1 μsec/DIV

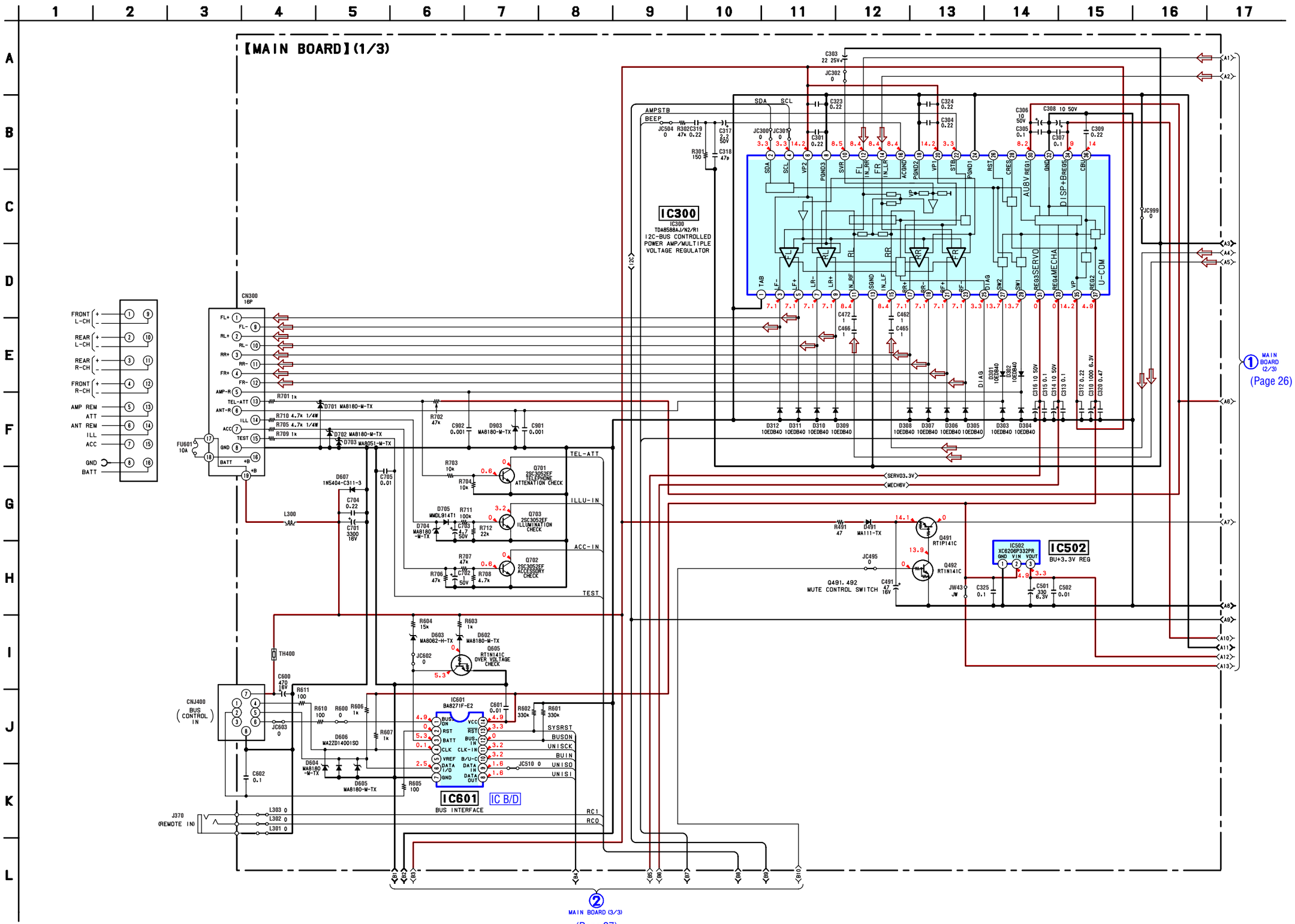
4-3. PRINTED WIRING BOARD — MAIN SECTION — : Uses unleaded solder.



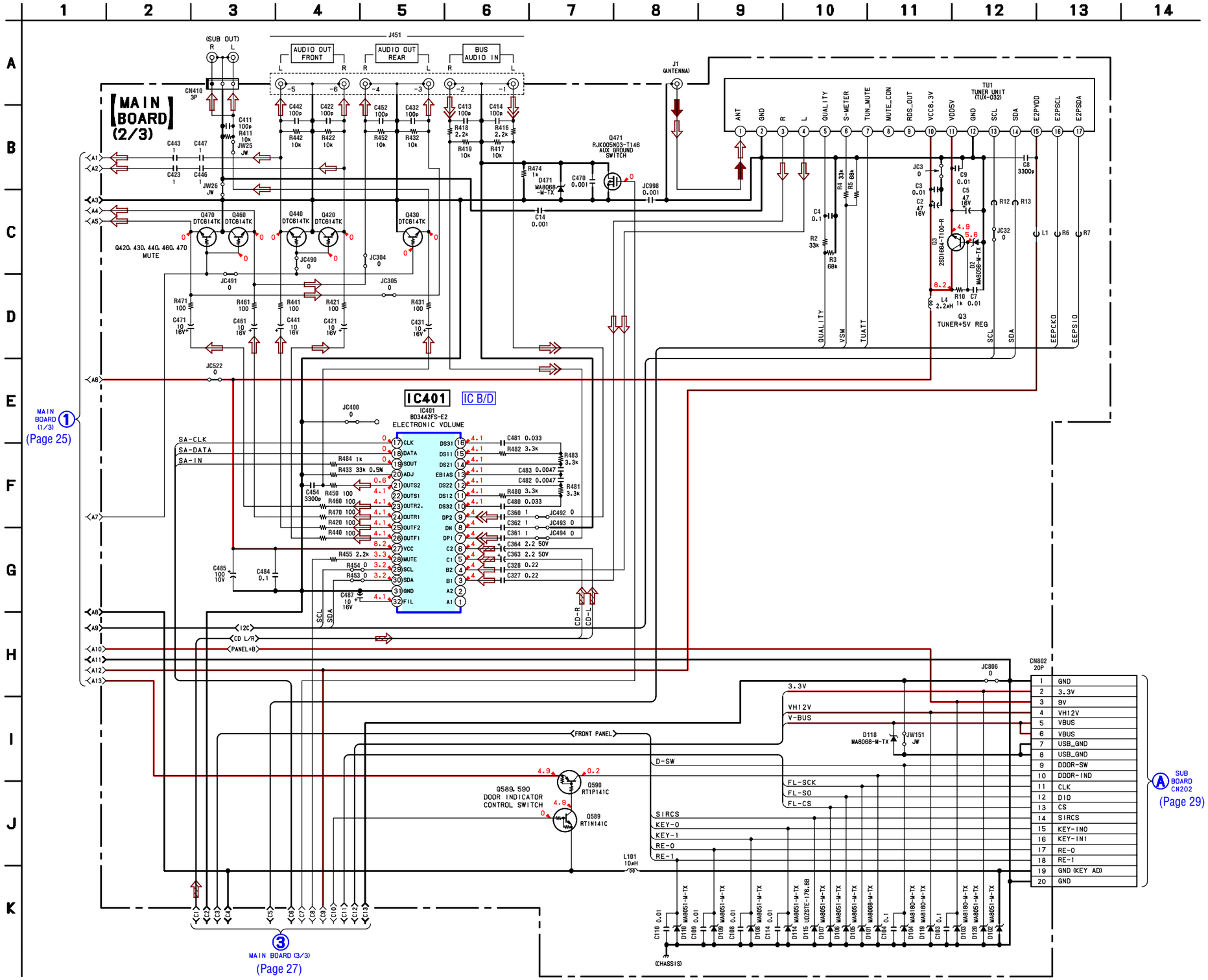
- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D2	F-2	D702	G-10
D101	I-2	D703	D-8
D102	I-2	D704	F-9
D103	J-3	D705	G-9
D104	J-3	D801	I-10
D105	J-3	D802	I-6
D106	J-3	D903	C-9
D107	J-3		
D108	J-2	IC300	B-5
D109	J-2	IC401	E-3
D110	I-2	IC501	H-6
D114	J-2	IC502	E-6
D115	J-2	IC601	H-10
D118	I-3	IC602	I-8
D119	I-4	IC801	I-7
D120	J-4	IC802	I-10
D301	D-8	IC803	J-5
D302	D-8	IC804	I-4
D303	D-9		
D304	C-9	Q3	F-2
D305	D-6	Q420	C-4
D306	C-6	Q423	F-7
D307	C-6	Q424	E-6
D308	D-6	Q426	E-6
D309	D-7	Q430	C-3
D310	D-6	Q440	C-3
D311	D-7	Q460	C-4
D312	D-7	Q470	C-4
D400	H-8	Q471	B-2
D471	B-3	Q491	E-5
D491	E-5	Q492	E-5
D501	I-6	Q501	I-6
D502	I-6	Q589	I-2
D602	F-10	Q590	I-2
D603	F-10	Q605	F-10
D604	F-10	Q701	D-8
D605	B-10	Q702	G-10
D606	C-10	Q703	G-9
D607	C-10	Q801	I-10
D701	C-8		

4-4. SCHEMATIC DIAGRAM — MAIN SECTION (1/3) — • Refer to page 32 for IC Block Diagrams.

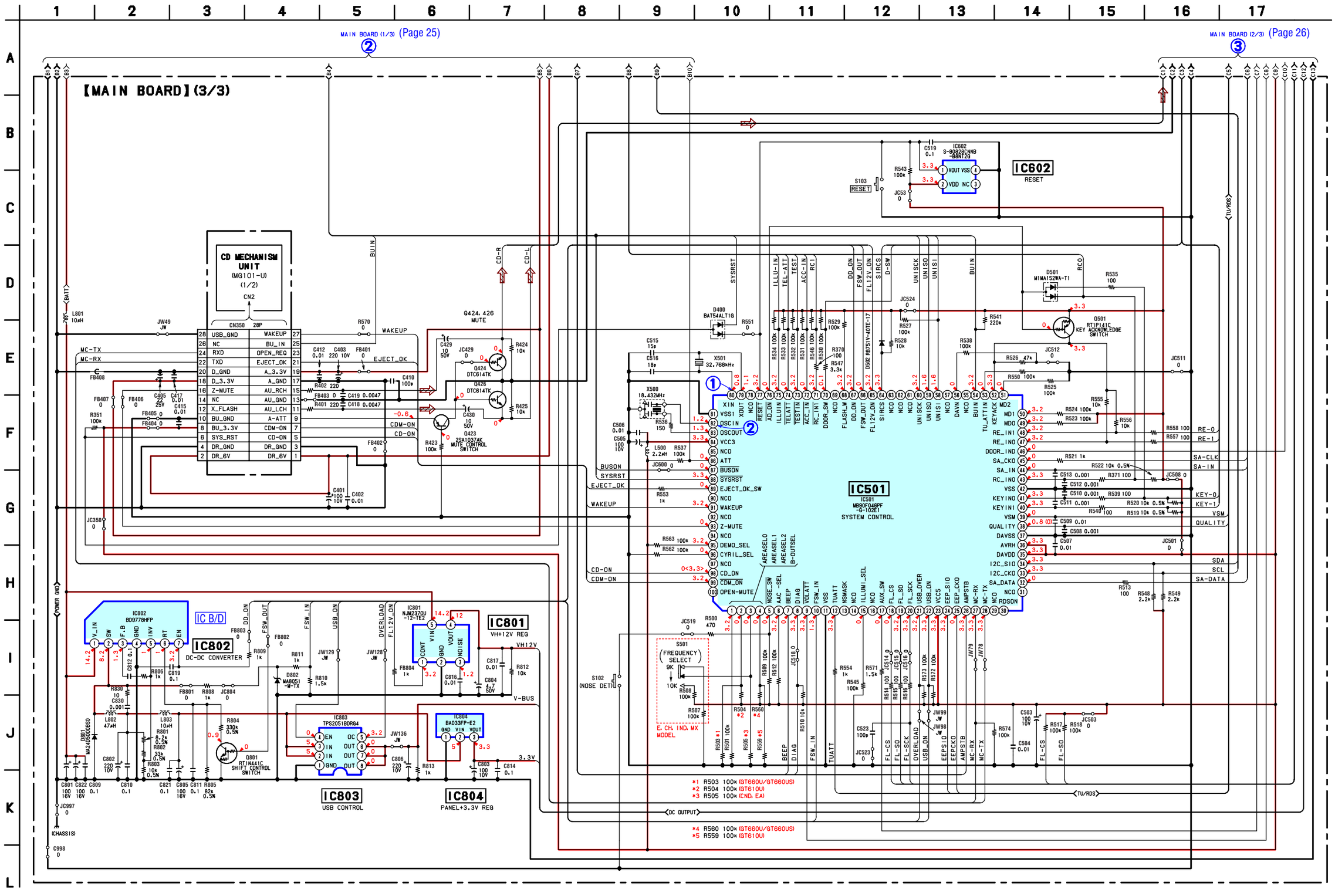


4-5. SCHEMATIC DIAGRAM — MAIN SECTION (2/3) — • Refer to page 32 for IC Block Diagrams.

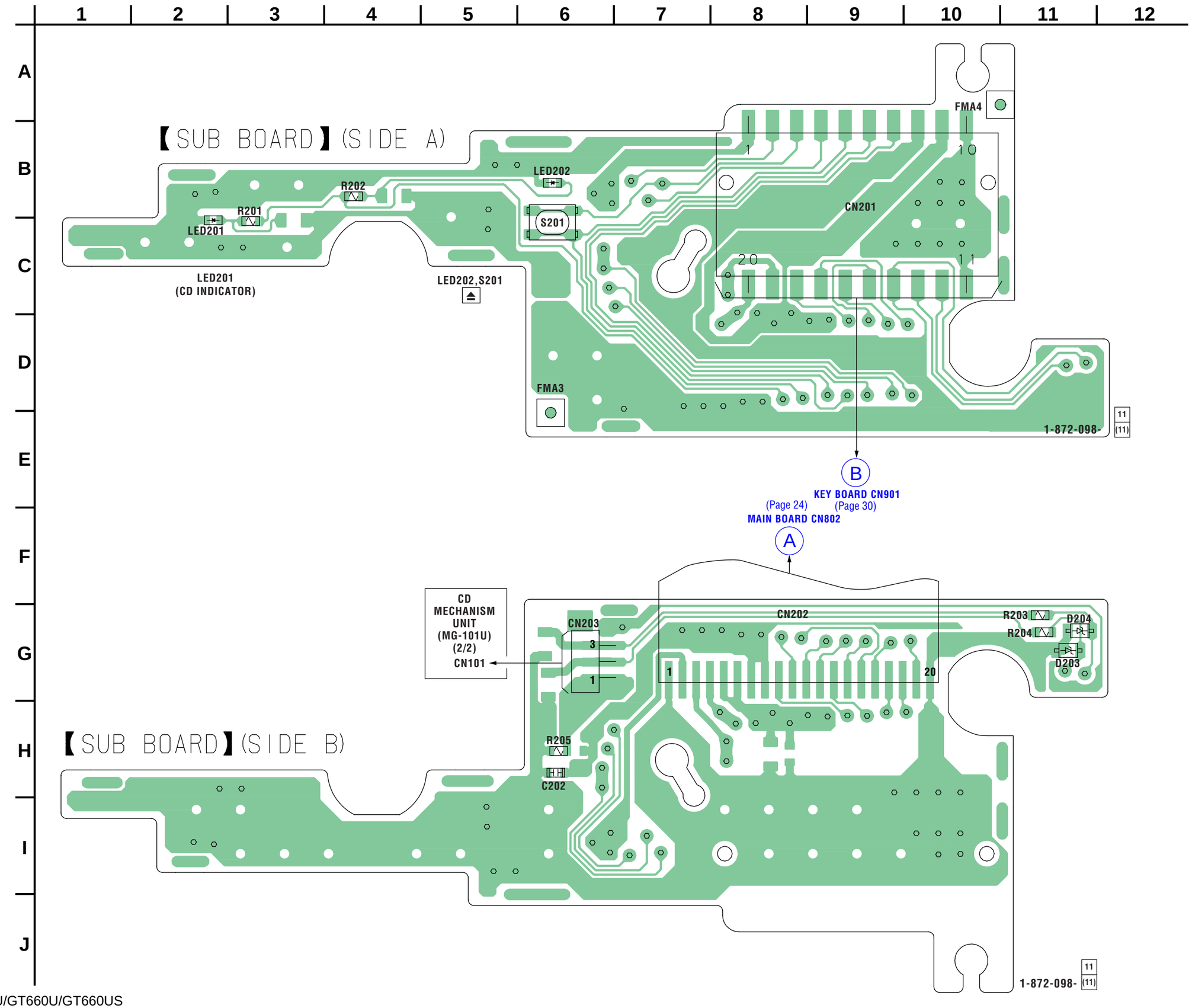


4-6. SCHEMATIC DIAGRAM — MAIN SECTION (3/3) —

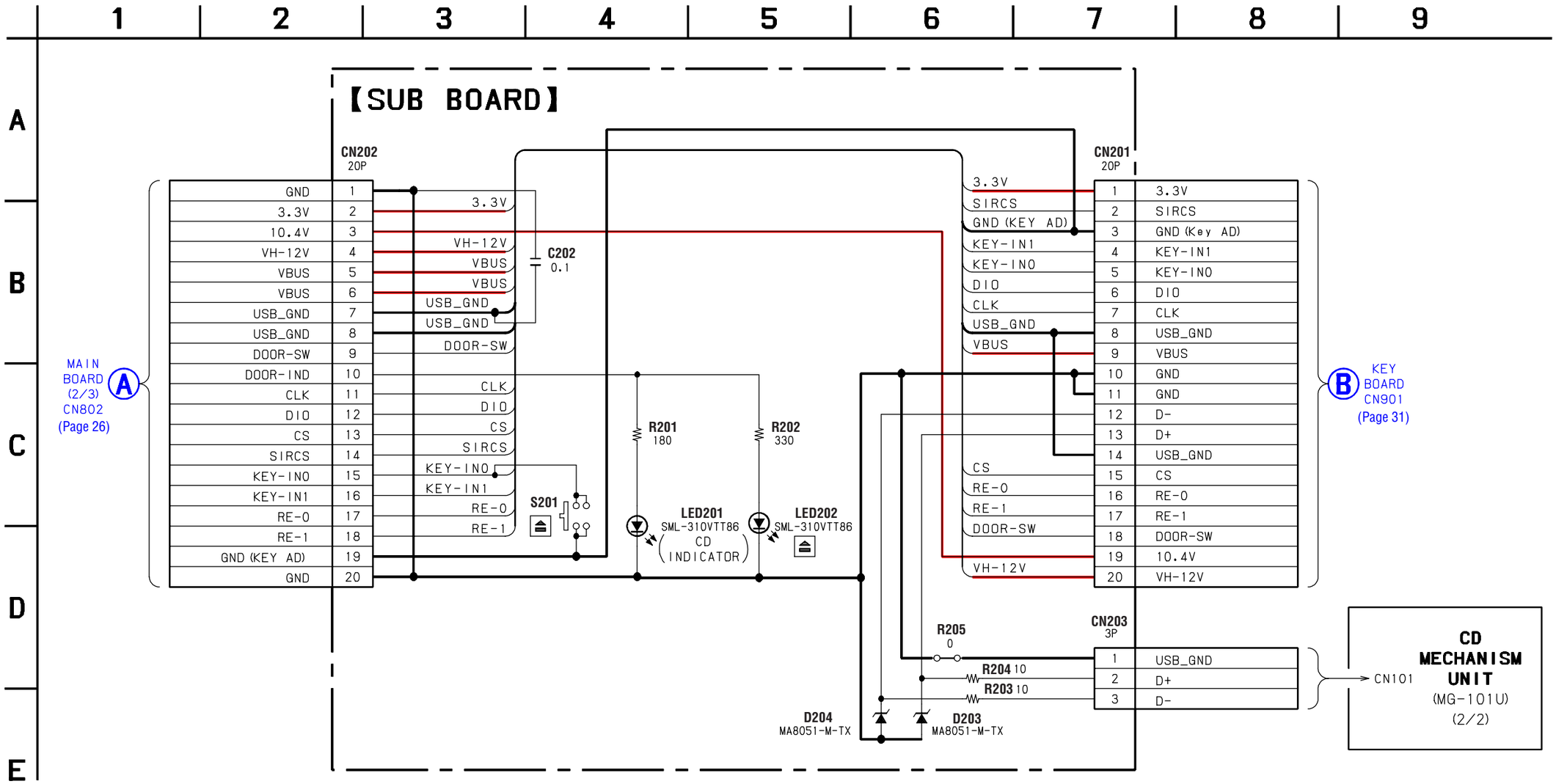
- Refer to page 23 for Waveforms.
- Refer to page 32 for IC Block Diagrams.
- Refer to page 33 for IC Pin Description of IC501.



4-7. PRINTED WIRING BOARD — SUB SECTION — : Uses unleaded solder.

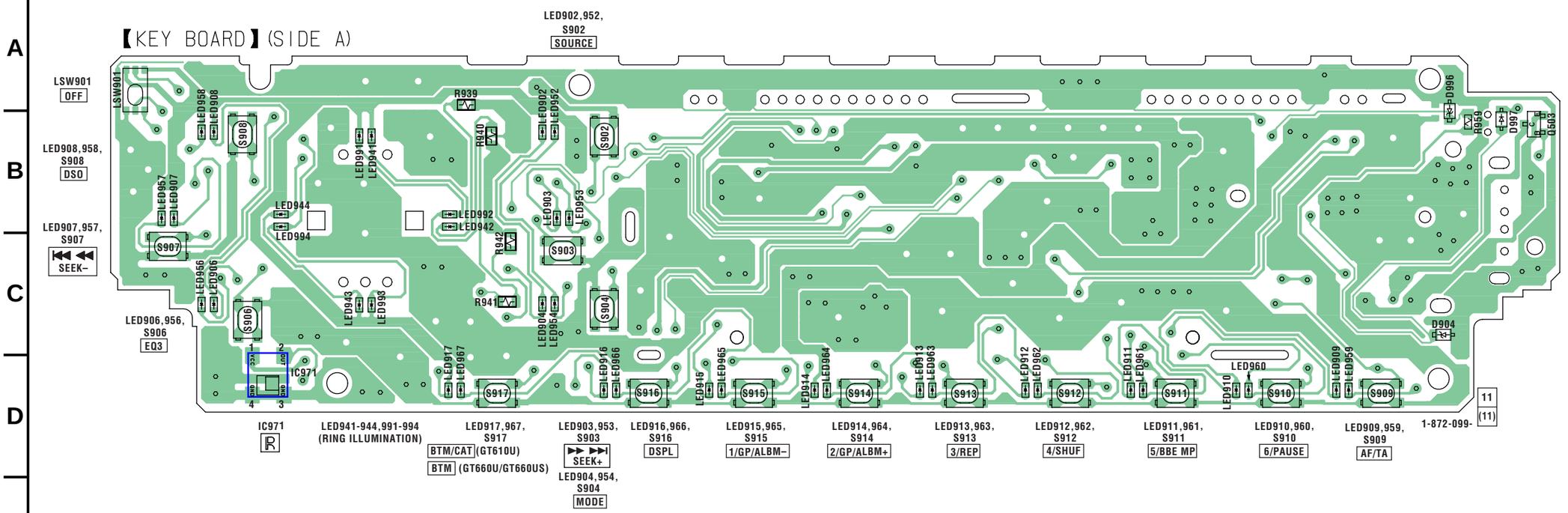


4-8. SCHEMATIC DIAGRAM — SUB SECTION —

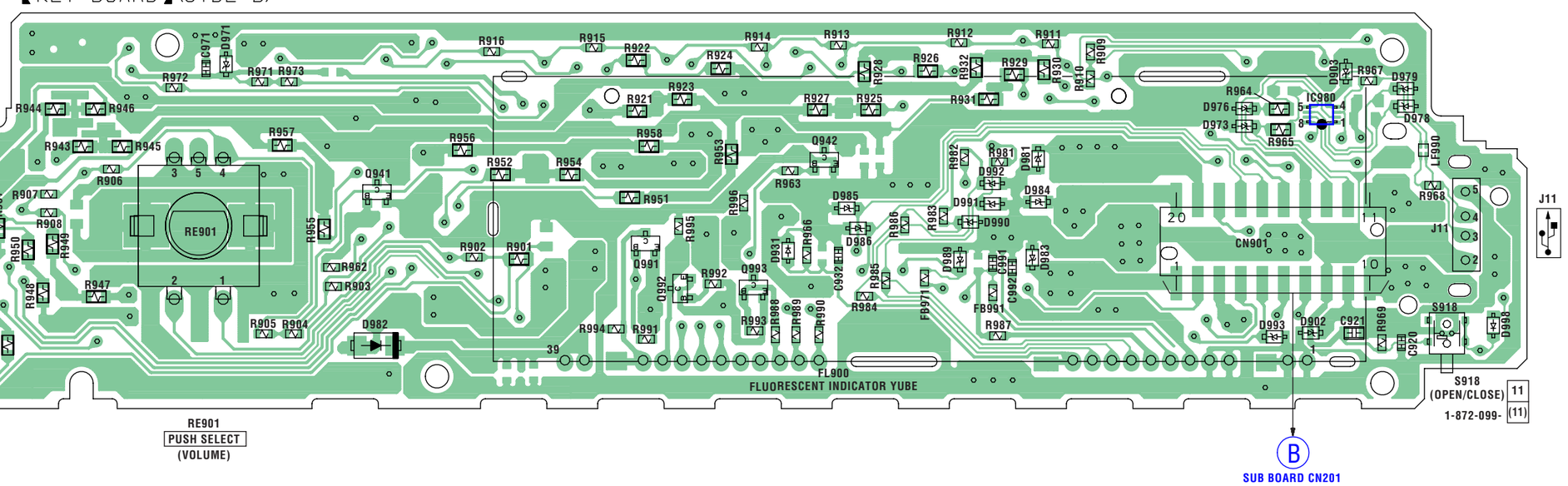


4-9. PRINTED WIRING BOARD — KEY SECTION — : Uses unleaded solder.

【KEY BOARD】(SIDE A)



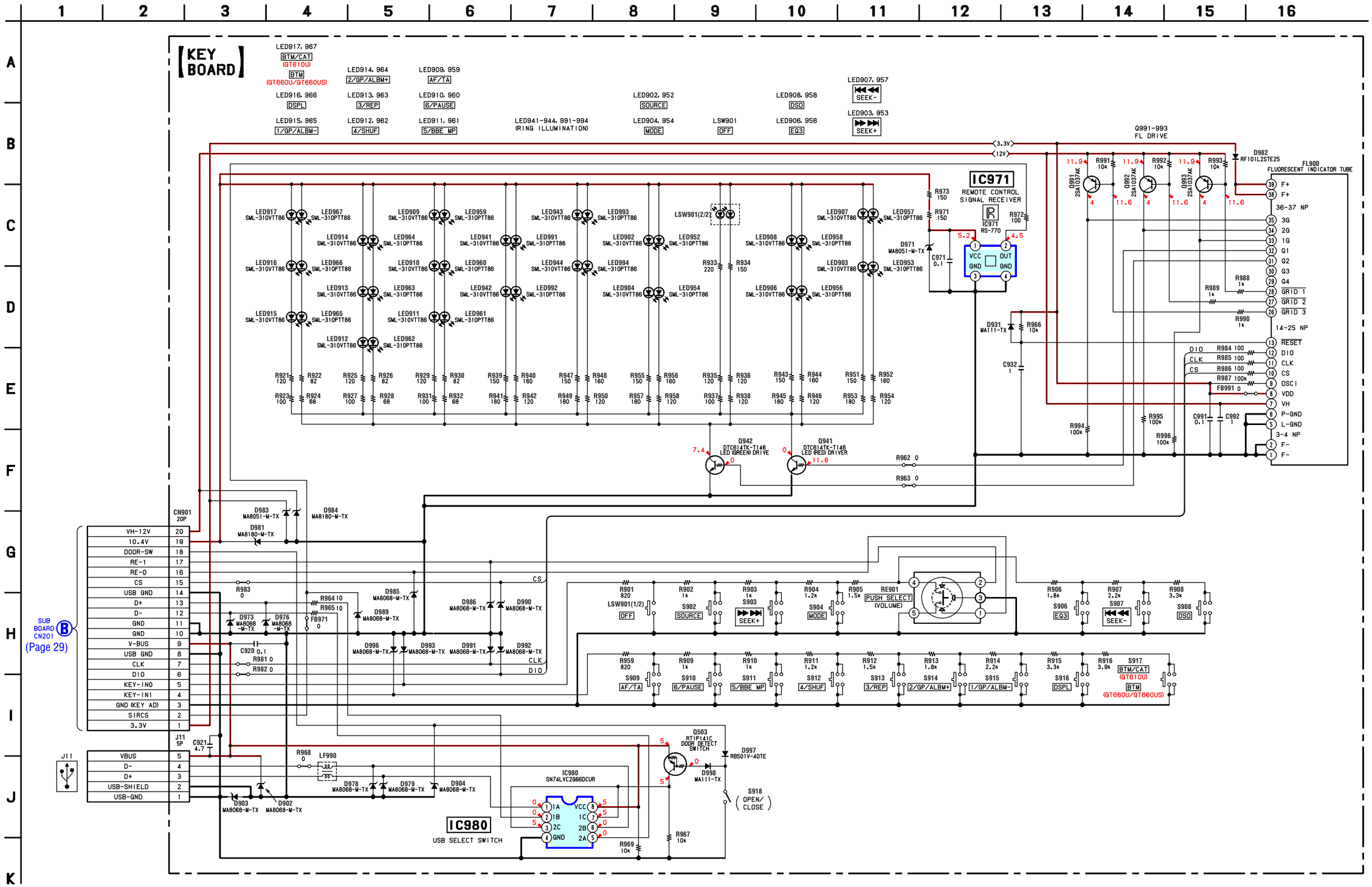
【KEY BOARD】(SIDE B)



- **Semiconductor Location**

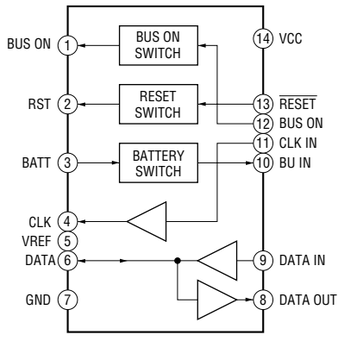
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D902	G-11	D984	F-9	IC971	D-3	LED912	D-9	LED954	C-5	LED967	D-4
D903	E-12	D985	F-8	IC980	F-12	LED913	D-8	LED956	C-2	LED991	B-3
D904	C-12	D986	G-8			LED914	D-7	LED957	B-2	LED992	B-4
D931	G-8	D989	G-9	LED902	B-5	LED915	D-6	LED958	B-2	LED993	C-3
D971	E-3	D990	G-9	LED903	B-5	LED916	D-5	LED959	D-11	LED994	B-3
D973	F-11	D991	F-9	LED904	C-5	LED917	D-4	LED960	D-11		
D976	F-11	D992	F-9	LED906	C-2	LED941	B-3	LED961	D-10	Q503	B-13
D978	F-12	D993	G-11	LED907	B-2	LED942	B-4	LED962	D-9	Q941	F-5
D979	F-12	D996	A-12	LED908	B-2	LED943	C-3	LED963	D-8	Q942	F-8
D981	F-9	D997	B-13	LED909	D-11	LED944	B-3	LED964	D-7	Q991	G-7
D982	D-5	D998	G-13	LED910	D-10	LED952	B-5	LED965	D-6	Q992	G-7
D983	G-9			LED911	D-10	LED953	B-5	LED966	D-5	Q993	G-7

4-10. SCHEMATIC DIAGRAM — KEY SECTION —

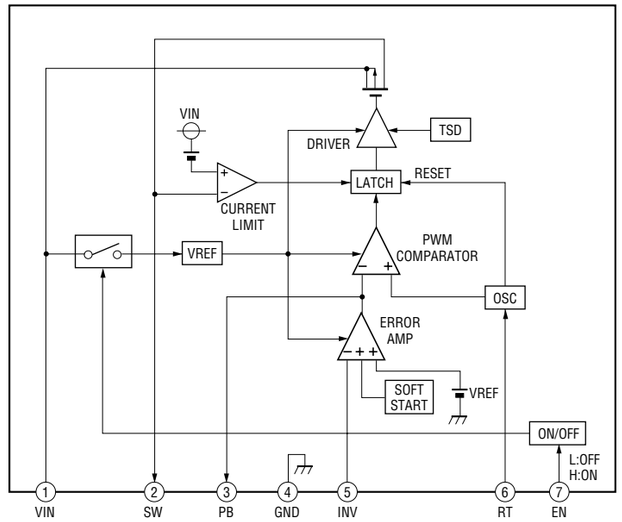


• IC BLOCK DIAGRAMS

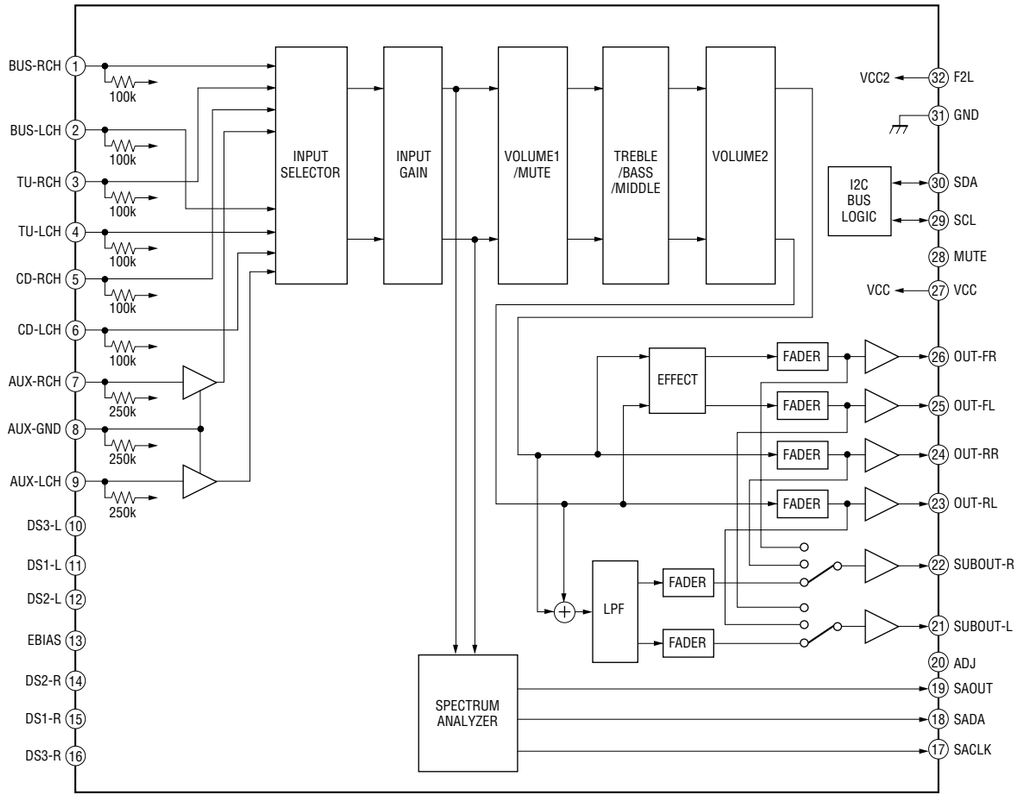
IC601 BA8271F-E2 (MAIN Board (1/3))



IC802 BD9778HFP (MAIN Board (3/3))



IC401 BD3442FS-E2 (MAIN Board (2/3))



• IC PIN DESCRIPTION

IC501 MB90F046PF-G-102E1 (SYSTEM CONTROL) (MAIN BOARD (3/3))

Pin No.	Pin Name	I/O	Pin Description
1	AREASEL0	I	Destination setting pin 0
2	AREASEL1	I	Destination setting pin 1
3	AREASEL2	I	Destination setting pin 2
4	B-OUTSEL	I	Black-out with/without discrimination signal input "H": Black-out
5	NOSE SW	I	Front panel attachment detect signal input "L": with panel
6	AAC SEL	I	AAC play setting signal input "H": AAC
7	BEEP	O	Beep signal output to power amplifier
8	DIAG	I	Status signal input from power amplifier
9	$\overline{\text{VOLATT}}$	O	Electronic volume attenuate control signal output
10	FSW IN	I	D/D converter oscillator frequency count signal input
11	VSS	—	Ground pin
12	TUATT	O	Tuner mute control signal output
13	NSMASK	O	Noise mask signal output
14	NCO	O	Not used. (Open)
15	ILLUMI SEL	I	Illumination voltage setting signal input
16	NCO	O	Not used. (Open)
17	AUX SW	O	AUX change over signal output "L": AUX, "H": BUS IN
18	FL CS	O	Fluorescent indicator tube chip select signal output
19	FL SO	O	Fluorescent indicator tube serial data signal output
20	FL SCK	O	Fluorescent indicator tube serial clock signal output
21	USB OVR	I	Overcurrent detect signal input from USB power supply high side switch
22	USB ON	O	USB power supply high side switch control signal output
23	VCC5	—	Power supply pin (+3.3 V)
24	EEP SIO	I/O	EEPROM bus serial data signal input/output
25	EEP CKO	O	EEPROM bus serial clock signal output
26	AMPSTB	O	Standby signal output to power amplifier
27	MC RX	I	Mechanism microcomputer comunication signal input RX
28	MC TX	O	Mechanism microcomputer comunication signal output TX
29	NCO	O	Not used. (Open)
30	RDS ON	O	RDS (Radio Data System) on signal output Tuner on: "L" Not used in this set.
31	NCO	O	Not used. (Open)
32	SA DATA	O	Data signal output for electronic volume IC spectrum analyzer
33	I2C SCK	O	I2C bus serial clock signal output
34	I2C SIO	I/O	I2C bus serial data signal input/output
35	DAVDD	—	A/D converter power supply pin (+3.3 V)
36	AVRH	—	A/D converter external reference power supply pin (+3.3 V)
37	DAVSS	—	Ground pin
38	QUALITY	I	Noise detect signal input
39	VSM	I	S-meter voltage detect signal input
40	KEYIN1	I	Key signal input 1
41	KEYIN0	I	Key signal input 0
42	VSS	—	Ground pin
43	RCIN0	I	Rotary commander key signal input
44	SA IN	I	Spectrum analyzer data signal input
45	SA CKO	O	Spectrum analyzer clock signal output
46	DOOR IND	O	Disc door indicator control signal output
47	RE IN0	I	Rotary encoder signal input 0
48	RE IN1	I	Rotary encoder signal input 1
49	MD0	I	Operation mode setting pin (Connect to VDD.)
50	MD1	I	Operation mode setting pin (Connect to VDD.)

Pin No.	Pin Name	I/O	Pin Description
51	MD2	I	Operation mode setting pin (Connect to VSS.)
52	KEYACK	I	Key acknowledgment detect signal input
53	TU ATTIN	I	Tuner mute zero cross detect signal input Not used in this set.
54	BUIN	I	Back-up power supply detect signal input
55	NCO	O	Not used. (Open)
56	DAVN	I	RDS (Radio Data System) data block synchronized detect signal input Not used in this set.
57	NCO	O	Not used. (Open)
58	UNISI	I	SONY bus data signal input
59	UNISO	O	SONY bus data signal output
60	UNISCK	O	SONY bus clock signal output
61 to 63	NCO	O	Not used. (Open)
64	SIRCS	I	Remote control signal input
65	FL12V ON	O	12V power supply control signal output for fluorescent indicator tube
66	FSW OUT	O	D/D converter oscillator frequency shift control signal output
67	DD ON	O	3.3V D/D converter power on/off control signal output for fluorescent indicator tube
68	FLASH W	I	Memory mode change signal input Normally “H”: Single chip mode, after reset “L”: flash write mode
69	NCO	O	Not used. (Open)
70	DOOR SW	I	Front panel open/close detect switch signal input
71	$\overline{\text{RC IN1}}$	I	Rotary commander shift key signal input
72	$\overline{\text{ACC IN}}$	I	Accessory power supply detect signal input
73	$\overline{\text{TESTIN}}$	I	Test mode detect signal input
74	$\overline{\text{TELATT}}$	I	Telephone attenuate detect signal input
75	ILLUIN	I	Illumination detect signal input “H”: Illumination off
76	$\overline{\text{AD ON}}$	O	A/D converter power supply control signal output
77	$\overline{\text{RESET}}$	I	CPU reset signal input
78	NCO	O	Not used. (Open)
79	XOUT	O	Low speed operation clock signal output (32.768 kHz)
80	XIN	I	Low speed operation clock signal input (32.768 kHz)
81	VSS1	—	Ground pin
82	OSCIN	I	High speed operation clock signal input (18.432 MHz)
83	OSCOUT	O	High speed operation clock signal output (18.432 MHz)
84	VCC3	—	Power supply pin (+3.3 V)
85	NCO	O	Not used. (Open)
86	ATT	O	Audio mute control signal output
87	$\overline{\text{BUSON}}$	O	Bus on signal output
88	$\overline{\text{SYSRST}}$	O	System reset signal output
89	EJECT OK SW	O	Eject OK signal output to CD mechanism unit
90	NCO	O	Not used. (Open)
91	WAKE UP	O	Mechanism microcomputer wake up signal output
92	NCO	O	Not used. (Open)
93	Z MUTE	I	Mute signal input
94	NCO	O	Not used. (Open)
95	DEMO SEL	I	DEMO select signal input “H”: DEMO on, “L”: DEMO off
96	CYRIL SEL	I	Cyril correspondence discrimination signal input “L”: No correspondence
97	NCO	O	Not used. (Open)
98	CD ON	I	CD mechanism servo power supply control request signal input
99	$\overline{\text{CDM ON}}$	I	CD mechanism deck power supply control request signal input
100	OPEN MUTE	O	Not used. (Open)

SECTION 5
EXPLODED VIEWS

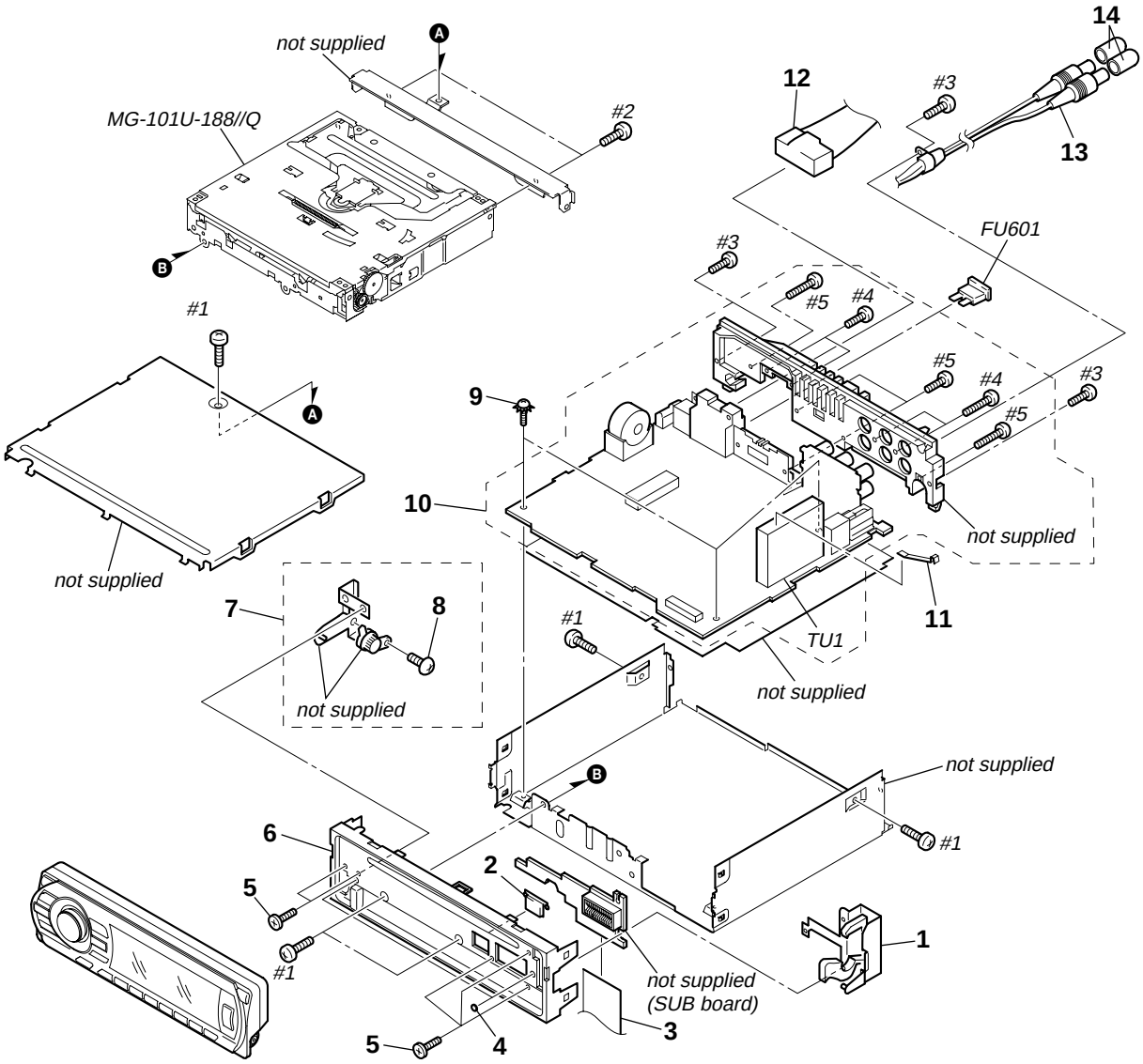
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation
  CND : Canadian model
  CH : Chinese model
  IND : Indian model
  MX : Mexican model
  EA : Saudi Arabia model
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  Parts Color Cabinet's Color
- Accessories are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

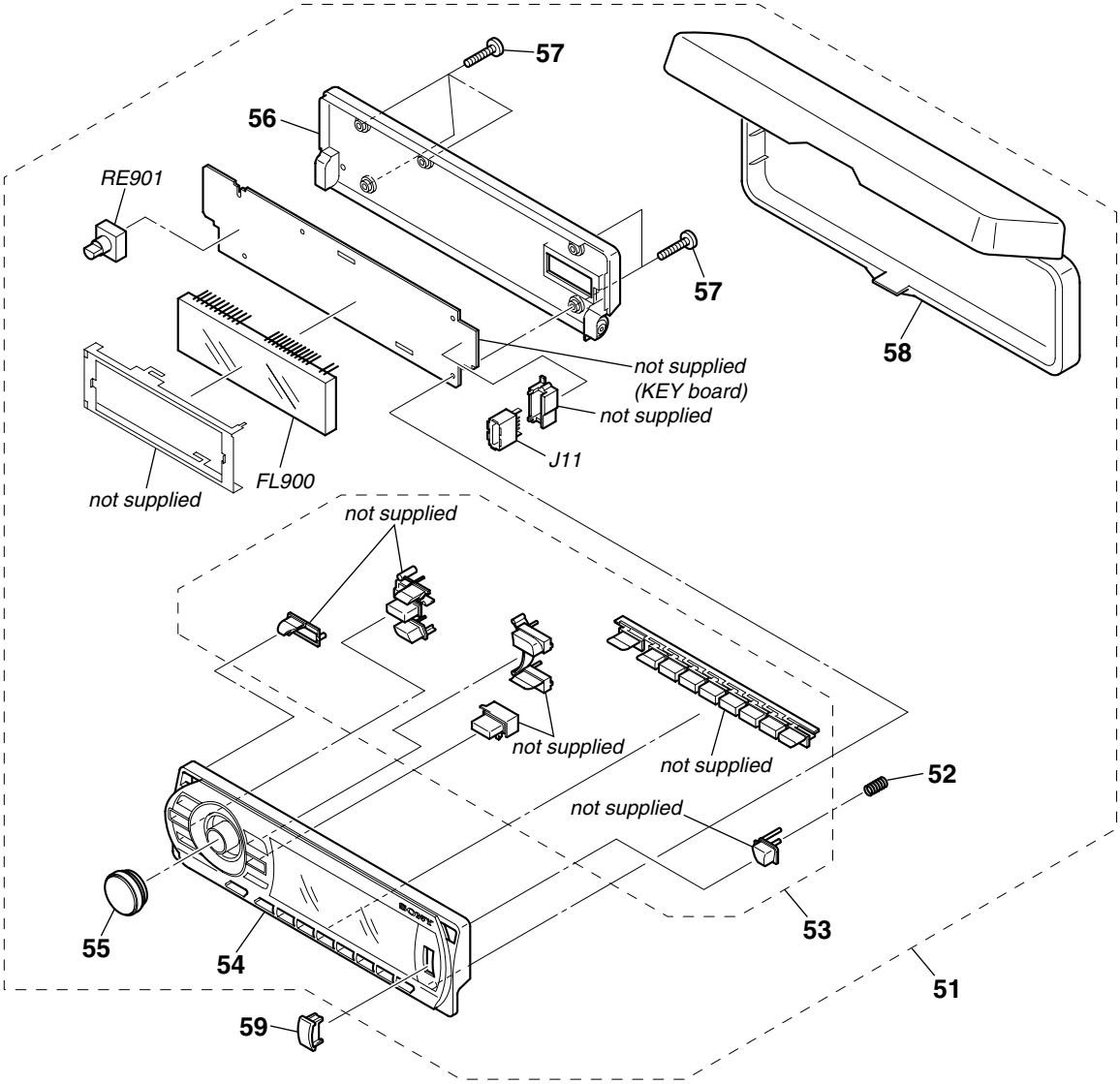
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

5-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	X-2149-741-1	LOCK ASSY	
2	3-246-441-01	BUTTON (EJECT)	
3	1-833-591-11	CABLE, FLEXIBLE FLAT (20 CORE)	
4	3-260-247-01	CUSHION (SUB PANEL)	
5	3-042-244-01	SCREW (T)	
6	X-2149-726-1	PANEL ASSY, SUB	
7	X-3384-203-1	GEAR ASSY	
8	3-713-786-51	SCREW +P 2X3	
9	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
10	A-1217-682-A	MAIN BOARD, COMPLETE (CND)	
10	A-1218-111-A	MAIN BOARD, COMPLETE (E,CH,IND,MX)	
10	A-1218-135-A	MAIN BOARD, COMPLETE (EA)	
11	2-021-848-01	SHEET (TU), GROUND	
12	1-833-102-11	CORD (WITH CONNECTOR) (POWER)	
13	1-833-887-11	CONNECTION CORD (RCA) (SUB OUT (MONO))	
14	3-264-798-01	CAP	
FU601	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TU1	A-3220-961-B	TUNER UNIT (TUX-032)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-790-01	SCREW +PTT 2.6X4 (S)	
#3	7-685-793-09	SCREW +PTT 2.6X8 (S)	
#4	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	
#5	7-685-794-09	SCREW +PTT 2.6X10 (S)	

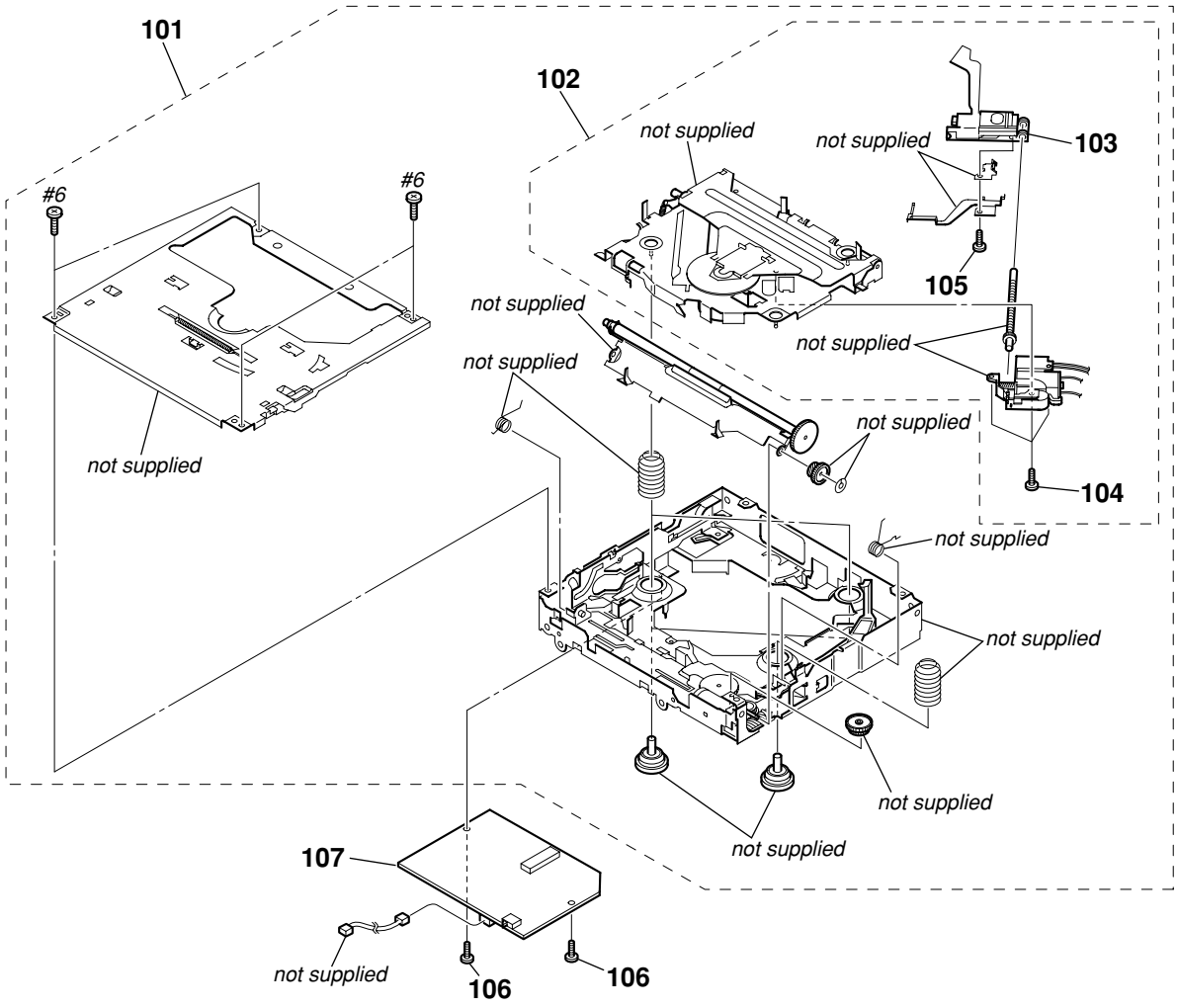
5-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	A-1218-113-A	PANEL OVERALL ASSY, FRONT (GT660US)	
51	A-1218-173-A	PANEL OVERALL ASSY, FRONT (GT660U)	
51	A-1218-968-A	PANEL OVERALL ASSY, FRONT (GT610U)	
52	3-264-712-01	SPRING (OPEN)	
53	X-2159-392-1	BUTTON ASSY (S) (GT610U/GT660U)	
53	X-2159-459-1	BUTTON ASSY (S) (GT660US)	
54	X-2159-393-1	PANEL (SV) ASSY, FRONT (GT610U)	
54	X-2159-458-1	PANEL (SV) ASSY, FRONT (GT660US)	
54	X-2159-461-1	PANEL (SV) ASSY, FRONT (GT660U)	
55	X-2149-198-1	KNOB ASSY (S)	
56	X-2159-462-1	PANEL (SV) ASSY, BACK	
57	3-250-543-21	SCREW (+B P-TITE M2)	
58	X-2149-228-2	CASE ASSY (for FRONT PANEL)	
59	2-686-945-01	CAP (USB)	
FL900	1-519-916-12	INDICATOR TUBE, FLUORESCENT	
J11	1-820-858-11	CONNECTOR, USB (SOCKET) 5P (USB)	
RE901	1-479-902-11	ENCODER, ROTARY (PUSH SELECT/VOLUME)	

5-3. CD MECHANISM SECTION (MG-101U-188//Q)

NOTE: Refer to SUPPLEMENT-1 for disassembly of OPTICAL PICK-UP.



Ref. No.	Part No.	Description	Remark
101	A-1234-480-A	MECHANICAL BLOCK (U) ASSY	
102	A-1177-169-A	DAXEV//Q	
⚠103	X-2149-672-1	SERVICE ASSY, OP (DAX-25A)	
104	2-626-869-01	SCREW (M2X3), SERRATION	
105	3-348-998-31	SCREW (M1.4X2.5), TAPPING, PAN	
106	3-352-758-31	SCREW (M1.7X2.5), TOOTHED LOCK	
107	A-1206-357-A	SERVO BOARD, COMPLETE	
#6	7-627-000-08	SCREW, PRECISION +P 1.7X2.2 TYPE3	

KEY

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH
- Abbreviation
  CND : Canadian model
  CH : Chinese model
  IND : Indian model
  MX : Mexican model
  EA : Saudi Arabia model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		**********			
		< CAPACITOR >			
C920	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C921	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C932	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C971	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C991	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C992	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
		< CONNECTOR >			
CN901	1-818-141-11	PLUG, CONNECTOR 20P			
		< DIODE >			
D902	8-719-977-12	DIODE	DTZ6.8B		
D903	8-719-977-12	DIODE	DTZ6.8B		
D904	8-719-977-12	DIODE	DTZ6.8B		
D931	8-719-404-50	DIODE	MA111-TX		
D971	8-719-420-90	DIODE	MA8051-M		
D973	8-719-977-12	DIODE	DTZ6.8B		
D976	8-719-977-12	DIODE	DTZ6.8B		
D978	8-719-977-12	DIODE	DTZ6.8B		
D979	8-719-977-12	DIODE	DTZ6.8B		
D981	8-719-057-80	DIODE	MA8180-M-TX		
D982	6-501-089-01	DIODE	RF101L2STE25		
D983	8-719-420-90	DIODE	MA8051-M		
D984	8-719-057-80	DIODE	MA8180-M-TX		
D985	8-719-977-12	DIODE	DTZ6.8B		
D986	8-719-977-12	DIODE	DTZ6.8B		
D989	8-719-977-12	DIODE	DTZ6.8B		
D990	8-719-977-12	DIODE	DTZ6.8B		
D991	8-719-977-12	DIODE	DTZ6.8B		
D992	8-719-977-12	DIODE	DTZ6.8B		
D993	8-719-977-12	DIODE	DTZ6.8B		
D996	8-719-977-12	DIODE	DTZ6.8B		
D997	8-719-058-24	DIODE	RB501V-40TE-17		
D998	8-719-404-50	DIODE	MA111-TX		
		< JUMPER RESISTOR >			
FB971	1-216-864-11	SHORT CHIP	0		
FB991	1-216-864-11	SHORT CHIP	0		

Ref. No.	Part No.	Description	Remark
		< FLUORESCENT INDICATOR TUBE >	
FL900	1-519-916-12	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC971	6-600-163-01	IC RS-770 (IR)	
* IC980	6-703-107-01	IC SN74LVC2G66DCUR	
		< CONNECTOR >	
J11	1-820-858-11	CONNECTOR, USB (SOCKET) 5P (USB)	
		< DIODE >	
LED902	8-719-053-09	LED SML-310VTT86 (SOURCE)	
LED903	8-719-053-09	LED SML-310VTT86 (▶▶ ▶▶I SEEK+)	
LED904	8-719-053-09	LED SML-310VTT86 (MODE)	
LED906	8-719-053-09	LED SML-310VTT86 (EQ3)	
LED907	8-719-053-09	LED SML-310VTT86 (I◀◀ ◀◀ SEEK–)	
LED908	8-719-053-09	LED SML-310VTT86 (DSO)	
LED909	8-719-053-09	LED SML-310VTT86 (AF/TA)	
LED910	8-719-053-09	LED SML-310VTT86 (6/PAUSE)	
LED911	8-719-053-09	LED SML-310VTT86 (5/BBE MP)	
LED912	8-719-053-09	LED SML-310VTT86 (4/SHUF)	
LED913	8-719-053-09	LED SML-310VTT86 (3/REP)	
LED914	8-719-053-09	LED SML-310VTT86 (2/GP/ALBM +)	
LED915	8-719-053-09	LED SML-310VTT86 (1/GP/ALBM –)	
LED916	8-719-053-09	LED SML-310VTT86 (DSPL)	
LED917	8-719-053-09	LED SML-310VTT86 (BTM/CAT) (GT610U)	
LED917	8-719-053-09	LED SML-310VTT86 (BTM) (GT660U/GT660US)	
LED941	8-719-053-09	LED SML-310VTT86 (RING ILLUMINATION)	
LED942	8-719-053-09	LED SML-310VTT86 (RING ILLUMINATION)	
LED943	8-719-053-09	LED SML-310VTT86 (RING ILLUMINATION)	
LED944	8-719-053-09	LED SML-310VTT86 (RING ILLUMINATION)	
LED952	8-719-078-21	LED SML-310PTT86 (SOURCE)	
LED953	8-719-078-21	LED SML-310PTT86 (▶▶ ▶▶I SEEK+)	
LED954	8-719-078-21	LED SML-310PTT86 (MODE)	
LED956	8-719-078-21	LED SML-310PTT86 (EQ3)	
LED957	8-719-078-21	LED SML-310PTT86 (I◀◀ ◀◀ SEEK–)	
LED958	8-719-078-21	LED SML-310PTT86 (DSO)	
LED959	8-719-078-21	LED SML-310PTT86 (AF/TA)	
LED960	8-719-078-21	LED SML-310PTT86 (6/PAUSE)	
LED961	8-719-078-21	LED SML-310PTT86 (5/BBE MP)	
LED962	8-719-078-21	LED SML-310PTT86 (4/SHUF)	
LED963	8-719-078-21	LED SML-310PTT86 (3/REP)	

Ref. No.	Part No.	Description			Remark
LED964	8-719-078-21	LED SML-310PTT86 (2/GP/ALBM +)			
LED965	8-719-078-21	LED SML-310PTT86 (1/GP/ALBM –)			
LED966	8-719-078-21	LED SML-310PTT86 (DSPL)			
LED967	8-719-078-21	LED SML-310PTT86 (BTM/CAT) (GT610U)			
LED967	8-719-078-21	LED SML-310PTT86 (BTM) (GT660U/GT660US)			
LED991	8-719-078-21	LED SML-310PTT86 (RING ILLUMINATION)			
LED992	8-719-078-21	LED SML-310PTT86 (RING ILLUMINATION)			
LED993	8-719-078-21	LED SML-310PTT86 (RING ILLUMINATION)			
LED994	8-719-078-21	LED SML-310PTT86 (RING ILLUMINATION)			
		< COIL >			
LF990	1-457-223-11	COIL, COMMON MODE CHOKE			
		< SWITCH >			
LSW901	1-798-017-11	SWITCH, TACTILE (WITH LED) (OFF)			
		< TRANSISTOR >			
Q503	8-729-027-23	TRANSISTOR DTA114EKA-T146			
Q941	6-550-752-01	TRANSISTOR DTC614TKT146			
Q942	6-550-752-01	TRANSISTOR DTC614TKT146			
Q991	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q992	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q993	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
		< RESISTOR >			
R901	1-216-047-11	RES-CHIP	820	5%	1/10W
R902	1-216-821-11	METAL CHIP	1K	5%	1/10W
R903	1-216-821-11	METAL CHIP	1K	5%	1/10W
R904	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R905	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R906	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R907	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R908	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R909	1-216-821-11	METAL CHIP	1K	5%	1/10W
R910	1-216-821-11	METAL CHIP	1K	5%	1/10W
R911	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R912	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R913	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R914	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R915	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R916	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R921	1-216-027-00	RES-CHIP	120	5%	1/10W
R922	1-216-023-00	RES-CHIP	82	5%	1/10W
R923	1-216-025-11	RES-CHIP	100	5%	1/10W
R924	1-216-021-00	RES-CHIP	68	5%	1/10W
R925	1-216-027-00	RES-CHIP	120	5%	1/10W
R926	1-216-023-00	RES-CHIP	82	5%	1/10W
R927	1-216-025-11	RES-CHIP	100	5%	1/10W
R928	1-216-021-00	RES-CHIP	68	5%	1/10W
R929	1-216-027-00	RES-CHIP	120	5%	1/10W
R930	1-216-023-00	RES-CHIP	82	5%	1/10W
R931	1-216-025-11	RES-CHIP	100	5%	1/10W
R932	1-216-021-00	RES-CHIP	68	5%	1/10W
R933	1-216-033-00	RES-CHIP	220	5%	1/10W
R934	1-216-029-00	RES-CHIP	150	5%	1/10W
R935	1-216-027-00	RES-CHIP	120	5%	1/10W

Ref. No.	Part No.	Description			Remark
R936	1-216-027-00	RES-CHIP	120	5%	1/10W
R937	1-216-025-11	RES-CHIP	100	5%	1/10W
R938	1-216-027-00	RES-CHIP	120	5%	1/10W
R939	1-216-029-00	RES-CHIP	150	5%	1/10W
R940	1-216-030-00	RES-CHIP	160	5%	1/10W
R941	1-216-031-00	RES-CHIP	180	5%	1/10W
R942	1-216-027-00	RES-CHIP	120	5%	1/10W
R943	1-216-029-00	RES-CHIP	150	5%	1/10W
R944	1-216-030-00	RES-CHIP	160	5%	1/10W
R945	1-216-031-00	RES-CHIP	180	5%	1/10W
R946	1-216-027-00	RES-CHIP	120	5%	1/10W
R947	1-216-029-00	RES-CHIP	150	5%	1/10W
R948	1-216-030-00	RES-CHIP	160	5%	1/10W
R949	1-216-031-00	RES-CHIP	180	5%	1/10W
R950	1-216-027-00	RES-CHIP	120	5%	1/10W
R951	1-216-029-00	RES-CHIP	150	5%	1/10W
R952	1-216-030-00	RES-CHIP	160	5%	1/10W
R953	1-216-031-00	RES-CHIP	180	5%	1/10W
R954	1-216-027-00	RES-CHIP	120	5%	1/10W
R955	1-216-029-00	RES-CHIP	150	5%	1/10W
R956	1-216-030-00	RES-CHIP	160	5%	1/10W
R957	1-216-031-00	RES-CHIP	180	5%	1/10W
R958	1-216-027-00	RES-CHIP	120	5%	1/10W
R959	1-216-047-11	RES-CHIP	820	5%	1/10W
R962	1-216-864-11	SHORT CHIP	0		
R963	1-216-864-11	SHORT CHIP	0		
R964	1-216-001-00	RES-CHIP	10	5%	1/10W
R965	1-216-001-00	RES-CHIP	10	5%	1/10W
R966	1-216-833-11	METAL CHIP	10K	5%	1/10W
R967	1-216-833-11	METAL CHIP	10K	5%	1/10W
R968	1-216-864-11	SHORT CHIP	0		
R969	1-216-833-11	METAL CHIP	10K	5%	1/10W
R971	1-216-811-11	METAL CHIP	150	5%	1/10W
R972	1-216-809-11	METAL CHIP	100	5%	1/10W
R973	1-216-811-11	METAL CHIP	150	5%	1/10W
R981	1-216-864-11	SHORT CHIP	0		
R982	1-216-864-11	SHORT CHIP	0		
R983	1-216-864-11	SHORT CHIP	0		
R984	1-216-809-11	METAL CHIP	100	5%	1/10W
R985	1-216-809-11	METAL CHIP	100	5%	1/10W
R986	1-216-809-11	METAL CHIP	100	5%	1/10W
R987	1-216-845-11	METAL CHIP	100K	5%	1/10W
R988	1-216-821-11	METAL CHIP	1K	5%	1/10W
R989	1-216-821-11	METAL CHIP	1K	5%	1/10W
R990	1-216-821-11	METAL CHIP	1K	5%	1/10W
R991	1-216-833-11	METAL CHIP	10K	5%	1/10W
R992	1-216-833-11	METAL CHIP	10K	5%	1/10W
R993	1-216-833-11	METAL CHIP	10K	5%	1/10W
R994	1-216-845-11	METAL CHIP	100K	5%	1/10W
R995	1-216-845-11	METAL CHIP	100K	5%	1/10W
R996	1-216-845-11	METAL CHIP	100K	5%	1/10W
		< ROTARY ENCODER >			
RE901	1-479-902-11	ENCODER, ROTARY (PUSH SELECT/VOLUME)			
		< SWITCH >			
S902	1-786-653-21	SWITCH, TACTILE (SOURCE)			

KEY **MAIN**

Ref. No.	Part No.	Description			Remark
S903	1-786-653-21	SWITCH, TACTILE (▶▶ ▶▶I SEEK+)			
S904	1-786-653-21	SWITCH, TACTILE (MODE)			
S906	1-786-653-21	SWITCH, TACTILE (EQ3)			
S907	1-786-653-21	SWITCH, TACTILE (I◀◀ ◀◀ SEEK–)			
S908	1-786-653-21	SWITCH, TACTILE (DSO)			
S909	1-786-653-21	SWITCH, TACTILE (AF/TA)			
S910	1-786-653-21	SWITCH, TACTILE (6/PAUSE)			
S911	1-786-653-21	SWITCH, TACTILE (5/BBE MP)			
S912	1-786-653-21	SWITCH, TACTILE (4/SHUF)			
S913	1-786-653-21	SWITCH, TACTILE (3/REP)			
S914	1-786-653-21	SWITCH, TACTILE (2/GP/ALBM +)			
S915	1-786-653-21	SWITCH, TACTILE (1/GP/ALBM –)			
S916	1-786-653-21	SWITCH, TACTILE (DSPL)			
S917	1-786-653-21	SWITCH, TACTILE (BTM/CAT) (GT610U)			
S917	1-786-653-21	SWITCH, TACTILE (BTM) (GT660U/GT660US)			
S918	1-798-032-11	SWITCH, DETECTION (OPEN/CLOSE)			
**********					
	A-1217-682-A	MAIN BOARD, COMPLETE (CND)			
	A-1218-111-A	MAIN BOARD, COMPLETE (E,CH,IND,MX)			
	A-1218-135-A	MAIN BOARD, COMPLETE (EA)			
		**********			
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
		< CAPACITOR >			
C2	1-126-947-11	ELECT	47uF	20%	35V
C3	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C4	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5	1-126-947-11	ELECT	47uF	20%	35V
C7	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C8	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C9	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C14	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C103	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C104	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C108	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C109	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C110	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C114	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C301	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C303	1-128-551-11	ELECT	22uF	20%	63V
C304	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C305	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C306	1-126-964-11	ELECT	10uF	20%	50V
C307	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C308	1-126-964-11	ELECT	10uF	20%	50V
C309	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C310	1-126-916-11	ELECT	1000uF	20%	6.3V
C312	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C313	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C314	1-124-261-00	ELECT	10uF	20%	50V
C315	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C316	1-124-261-00	ELECT	10uF	20%	50V
C317	1-124-257-00	ELECT	2.2uF	20%	50V
C318	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C319	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C320	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V

Ref. No.	Part No.	Description			Remark
C323	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C324	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C325	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C327	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C328	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C360	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C361	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C362	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C363	1-124-257-00	ELECT	2.2uF	20%	50V
C364	1-124-257-00	ELECT	2.2uF	20%	50V
C401	1-124-584-00	ELECT	100uF	20%	10V
C402	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C403	1-126-176-11	ELECT	220uF	20%	10V
C405	1-124-248-00	ELECT	22uF	20%	25V
C410	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C411	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C412	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C413	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C414	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C415	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C417	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C418	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C419	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C421	1-126-791-11	ELECT	10uF	20%	35V
C422	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C423	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C429	1-124-261-00	ELECT	10uF	20%	50V
C430	1-124-261-00	ELECT	10uF	20%	50V
C431	1-126-791-11	ELECT	10uF	20%	35V
C432	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C441	1-126-791-11	ELECT	10uF	20%	35V
C442	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C443	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C446	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C447	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C452	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C454	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C461	1-126-791-11	ELECT	10uF	20%	35V
C462	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C465	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C466	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C470	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C471	1-126-791-11	ELECT	10uF	20%	35V
C472	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C480	1-136-159-00	FILM	0.033uF	5%	50V
C481	1-136-159-00	FILM	0.033uF	5%	50V
C482	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C483	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C484	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C485	1-104-665-11	ELECT	100uF	20%	25V
C487	1-126-791-11	ELECT	10uF	20%	35V
C491	1-124-589-11	ELECT	47uF	20%	16V
C501	1-128-057-11	ELECT	330uF	20%	6.3V
C502	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C503	1-124-584-00	ELECT	100uF	20%	10V
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C505	1-124-584-00	ELECT	100uF	20%	10V
C506	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

Ref. No.	Part No.	Description			Remark
C507	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C508	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C509	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C510	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C511	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C512	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C515	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C516	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C519	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C523	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C600	1-126-935-11	ELECT	470uF	20%	16V
C601	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C602	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C701	1-131-868-81	ELECT	3300uF	20%	16V
C702	1-126-160-11	ELECT	1uF	20%	50V
C703	1-126-163-11	ELECT	4.7uF	20%	50V
C704	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C705	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C801	1-126-933-11	ELECT	100uF	20%	16V
C802	1-126-934-11	ELECT	220uF	20%	16V
C803	1-104-665-11	ELECT	100uF	20%	25V
C804	1-126-963-11	ELECT	4.7uF	20%	50V
C805	1-126-933-11	ELECT	100uF	20%	16V
C806	1-126-934-11	ELECT	220uF	20%	16V
C809	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C810	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C811	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C812	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C814	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C816	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C817	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C819	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C821	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C822	1-126-933-11	ELECT	100uF	20%	16V
C830	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C901	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C902	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C998	1-216-864-11	SHORT CHIP	0		
		< CONNECTOR >			
CN300	1-774-701-21	PIN, CONNECTOR 16P			
CN350	1-820-611-11	CONNECTOR, BOARD TO BOARD 28P			
* CN410	1-564-506-11	PLUG, CONNECTOR 3P			
CN802	1-569-913-11	SOCKET, CONNECTOR 20P			
CNJ400	1-580-907-41	PLUG, CONNECTOR 8P (BUS CONTROL IN)			
		< DIODE >			
D2	8-719-977-03	DIODE	DTZ5.6B		
D101	8-719-977-12	DIODE	DTZ6.8B		
D102	8-719-420-90	DIODE	MA8051-M		
D103	8-719-057-80	DIODE	MA8180-M-TX		
D104	8-719-057-80	DIODE	MA8180-M-TX		
D105	8-719-420-90	DIODE	MA8051-M		
D106	8-719-420-90	DIODE	MA8051-M		
D107	8-719-420-90	DIODE	MA8051-M		
D108	8-719-420-90	DIODE	MA8051-M		
D109	8-719-420-90	DIODE	MA8051-M		

Ref. No.	Part No.	Description			Remark
D110	8-719-420-90	DIODE	MA8051-M		
D114	8-719-420-90	DIODE	MA8051-M		
D115	8-719-978-33	DIODE	DTZ-TT11-6.8B		
D118	8-719-977-12	DIODE	DTZ6.8B		
D119	8-719-057-80	DIODE	MA8180-M-TX		
D120	8-719-420-90	DIODE	MA8051-M		
D301	6-500-522-01	DIODE	10EDB40-TA1B2		
D302	6-500-522-01	DIODE	10EDB40-TA1B2		
D303	6-500-522-01	DIODE	10EDB40-TA1B2		
D304	6-500-522-01	DIODE	10EDB40-TA1B2		
D305	6-500-522-01	DIODE	10EDB40-TA1B2		
D306	6-500-522-01	DIODE	10EDB40-TA1B2		
D307	6-500-522-01	DIODE	10EDB40-TA1B2		
D308	6-500-522-01	DIODE	10EDB40-TA1B2		
D309	6-500-522-01	DIODE	10EDB40-TA1B2		
D310	6-500-522-01	DIODE	10EDB40-TA1B2		
D311	6-500-522-01	DIODE	10EDB40-TA1B2		
D312	6-500-522-01	DIODE	10EDB40-TA1B2		
D400	6-501-013-01	DIODE	BAT54ALT1G		
D471	8-719-977-12	DIODE	DTZ6.8B		
D491	8-719-404-50	DIODE	MA111-TX		
D501	8-719-050-37	DIODE	M1MA152WA-T1		
D502	8-719-060-48	DIODE	RB751V-40TE-17		
D602	8-719-057-80	DIODE	MA8180-M-TX		
D603	8-719-422-67	DIODE	MA8062-H		
D604	8-719-057-80	DIODE	MA8180-M-TX		
D605	8-719-057-80	DIODE	MA8180-M-TX		
D606	8-719-072-70	DIODE	MA2ZD14001S0		
D607	6-501-571-01	DIODE	1N5404-C311-3		
D701	8-719-057-80	DIODE	MA8180-M-TX		
D702	8-719-057-80	DIODE	MA8180-M-TX		
D703	8-719-420-90	DIODE	MA8051-M		
D704	8-719-057-80	DIODE	MA8180-M-TX		
D705	8-719-081-97	DIODE	MMDL914T1		
D801	6-501-657-01	DIODE	MA24D5000BS0		
D802	8-719-420-90	DIODE	MA8051-M		
D903	8-719-057-80	DIODE	MA8180-M-TX		
		< FERRITE BEAD >			
FB401	1-216-295-11	SHORT CHIP	0		
FB402	1-216-864-11	SHORT CHIP	0		
FB403	1-216-864-11	SHORT CHIP	0		
FB404	1-216-295-11	SHORT CHIP	0		
FB405	1-216-864-11	SHORT CHIP	0		
FB406	1-216-864-11	SHORT CHIP	0		
FB407	1-216-295-11	SHORT CHIP	0		
FB408	1-469-876-11	INDUCTOR, FERRITE BEAD			
FB801	1-216-864-11	SHORT CHIP	0		
FB802	1-216-864-11	SHORT CHIP	0		
FB803	1-216-864-11	SHORT CHIP	0		
FB804	1-216-821-11	METAL CHIP	1K	5%	1/10W
		< IC >			
IC300	6-705-359-02	IC	TDA8588AJ/N2/R1		
IC401	6-710-065-01	IC	BD3442FS-E2		
IC501	6-807-002-01	IC	MB90F046PF-G-102E1		
IC502	6-704-529-01	IC	XC6206P332PR		
IC601	6-703-884-01	IC	BA8271F-E2		

MAIN

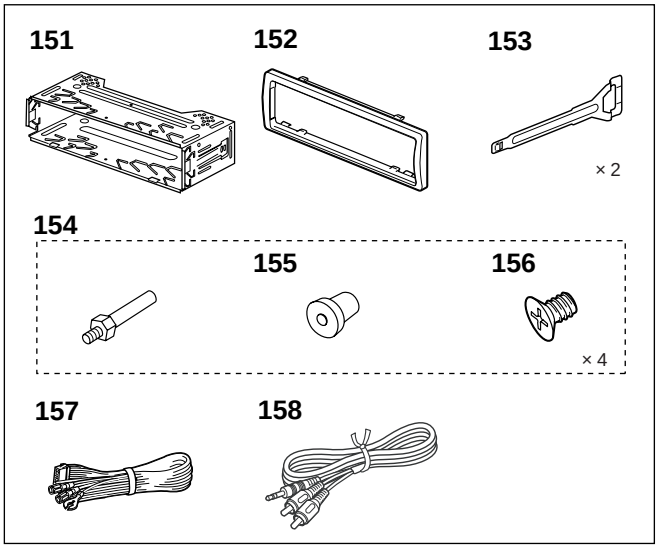
Ref. No.	Part No.	Description	Remark
IC602	6-703-224-01	IC S-80828CNNB-B8NT2G	
IC801	6-710-493-01	IC NJM2370U1-12-TE2	
IC802	6-707-911-01	IC BD9778HFP	
IC803	6-710-624-01	IC TPS2051BDRG4	
IC804	8-759-460-72	IC BA033FP-E2	
		< JACK >	
J1	1-815-185-13	JACK (ANTENNA)	
J370	1-566-822-41	JACK (REMOTE IN)	
J451	1-774-700-41	JACK, PIN 6P (BUS AUDIO IN, AUDIO OUT REAR/FRONT)	
		< JUMPER RESISTOR >	
JC3	1-216-864-11	SHORT CHIP 0	
JC32	1-216-864-11	SHORT CHIP 0	
JC53	1-216-864-11	SHORT CHIP 0	
JC300	1-216-296-11	SHORT CHIP 0	
JC301	1-216-296-11	SHORT CHIP 0	
JC302	1-216-296-11	SHORT CHIP 0	
JC304	1-216-864-11	SHORT CHIP 0	
JC305	1-216-296-11	SHORT CHIP 0	
JC350	1-216-296-11	SHORT CHIP 0	
JC400	1-216-295-11	SHORT CHIP 0	
JC429	1-216-296-11	SHORT CHIP 0	
JC490	1-216-296-11	SHORT CHIP 0	
JC491	1-216-296-11	SHORT CHIP 0	
JC492	1-216-864-11	SHORT CHIP 0	
JC493	1-216-295-11	SHORT CHIP 0	
JC494	1-216-864-11	SHORT CHIP 0	
JC495	1-216-864-11	SHORT CHIP 0	
JC501	1-216-296-11	SHORT CHIP 0	
JC503	1-216-296-11	SHORT CHIP 0	
JC504	1-216-296-11	SHORT CHIP 0	
JC508	1-216-296-11	SHORT CHIP 0	
JC510	1-216-864-11	SHORT CHIP 0	
JC511	1-216-864-11	SHORT CHIP 0	
JC512	1-216-864-11	SHORT CHIP 0	
JC514	1-216-864-11	SHORT CHIP 0	
JC515	1-216-864-11	SHORT CHIP 0	
JC516	1-216-864-11	SHORT CHIP 0	
JC518	1-216-296-11	SHORT CHIP 0	
JC519	1-216-296-11	SHORT CHIP 0	
JC522	1-216-295-11	SHORT CHIP 0	
JC523	1-216-295-11	SHORT CHIP 0	
JC524	1-216-296-11	SHORT CHIP 0	
JC600	1-216-864-11	SHORT CHIP 0	
JC602	1-216-296-11	SHORT CHIP 0	
JC603	1-216-296-11	SHORT CHIP 0	
JC804	1-216-295-11	SHORT CHIP 0	
JC806	1-216-864-11	SHORT CHIP 0	
JC997	1-216-864-11	SHORT CHIP 0	
JC998	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
JC999	1-216-864-11	SHORT CHIP 0	
		< COIL >	
L1	1-500-245-11	INDUCTOR, FERRITE BEAD	
L4	1-469-844-11	INDUCTOR 2.2uH	
L101	1-410-509-11	INDUCTOR 10uH	
L300	1-456-617-11	COIL, CHOKE	
L301	1-216-864-11	SHORT CHIP 0	
L302	1-216-864-11	SHORT CHIP 0	
L303	1-216-864-11	SHORT CHIP 0	
L500	1-469-844-11	INDUCTOR 2.2uH	
L801	1-457-418-11	COIL, CHOKE 10uH	
L802	1-457-378-11	COIL, CHOKE 47uH	
L803	1-457-418-11	COIL, CHOKE 10uH	
		< TRANSISTOR >	
Q3	8-729-106-68	TRANSISTOR 2SD1615A-GP	
Q420	6-550-752-01	TRANSISTOR DTC614TKT146	
Q423	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q424	6-550-752-01	TRANSISTOR DTC614TKT146	
Q426	6-550-752-01	TRANSISTOR DTC614TKT146	
Q430	6-550-752-01	TRANSISTOR DTC614TKT146	
Q440	6-550-752-01	TRANSISTOR DTC614TKT146	
Q460	6-550-752-01	TRANSISTOR DTC614TKT146	
Q470	6-550-752-01	TRANSISTOR DTC614TKT146	
Q471	6-550-683-01	FET RJK005N03-T146	
Q491	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q492	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q501	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q589	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q590	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q605	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q701	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q702	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q703	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q801	1-801-806-11	TRANSISTOR DTC144EKA	
		< RESISTOR >	
R2	1-216-839-11	METAL CHIP 33K 5% 1/10W	
R3	1-216-843-11	METAL CHIP 68K 5% 1/10W	
R4	1-216-839-11	METAL CHIP 33K 5% 1/10W	
R5	1-216-843-11	METAL CHIP 68K 5% 1/10W	
R6	1-414-595-11	INDUCTOR, FERRITE BEAD	
R7	1-414-595-11	INDUCTOR, FERRITE BEAD	
R10	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R12	1-414-595-11	INDUCTOR, FERRITE BEAD	
R13	1-414-595-11	INDUCTOR, FERRITE BEAD	
R301	1-216-811-11	METAL CHIP 150 5% 1/10W	
R302	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R351	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R370	1-216-809-11	METAL CHIP 100 5% 1/10W	
R371	1-216-809-11	METAL CHIP 100 5% 1/10W	
R401	1-216-813-11	METAL CHIP 220 5% 1/10W	
R402	1-216-813-11	METAL CHIP 220 5% 1/10W	
R411	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R416	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R417	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R418	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R419	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R420	1-216-809-11	METAL CHIP 100 5% 1/10W	
R421	1-216-809-11	METAL CHIP 100 5% 1/10W	
R422	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R423	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R424	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R425	1-216-833-11	METAL CHIP 10K 5% 1/10W	

Ref. No.	Part No.	Description			Remark
R431	1-216-809-11	METAL CHIP	100	5%	1/10W
R432	1-216-833-11	METAL CHIP	10K	5%	1/10W
R433	1-218-883-11	METAL CHIP	33K	0.5%	1/10W
R440	1-216-809-11	METAL CHIP	100	5%	1/10W
R441	1-216-809-11	METAL CHIP	100	5%	1/10W
R442	1-216-833-11	METAL CHIP	10K	5%	1/10W
R450	1-216-809-11	METAL CHIP	100	5%	1/10W
R452	1-216-833-11	METAL CHIP	10K	5%	1/10W
R453	1-216-864-11	SHORT CHIP	0		
R454	1-216-864-11	SHORT CHIP	0		
R455	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R460	1-216-809-11	METAL CHIP	100	5%	1/10W
R461	1-216-809-11	METAL CHIP	100	5%	1/10W
R470	1-216-809-11	METAL CHIP	100	5%	1/10W
R471	1-216-809-11	METAL CHIP	100	5%	1/10W
R474	1-216-821-11	METAL CHIP	1K	5%	1/10W
R480	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R481	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R482	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R483	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R484	1-216-821-11	METAL CHIP	1K	5%	1/10W
R491	1-216-805-11	METAL CHIP	47	5%	1/10W
R500	1-216-817-11	METAL CHIP	470	5%	1/10W
R501	1-216-845-11	METAL CHIP	100K	5%	1/10W
R503	1-216-845-11	METAL CHIP	100K	5%	1/10W
				(GT660U/GT660US)	
R504	1-216-845-11	METAL CHIP	100K	5%	1/10W
					(GT610U)
R505	1-216-845-11	METAL CHIP	100K	5%	1/10W
					(CND,EA)
R507	1-216-845-11	METAL CHIP	100K	5%	1/10W
				(E,CH,IND,MX)	
R508	1-216-845-11	METAL CHIP	100K	5%	1/10W
				(E,CH,IND,MX)	
R509	1-216-845-11	METAL CHIP	100K	5%	1/10W
R510	1-216-833-11	METAL CHIP	10K	5%	1/10W
R512	1-216-845-11	METAL CHIP	100K	5%	1/10W
R513	1-216-809-11	METAL CHIP	100	5%	1/10W
R514	1-216-809-11	METAL CHIP	100	5%	1/10W
R515	1-216-809-11	METAL CHIP	100	5%	1/10W
R516	1-216-809-11	METAL CHIP	100	5%	1/10W
R517	1-216-845-11	METAL CHIP	100K	5%	1/10W
R518	1-216-845-11	METAL CHIP	100K	5%	1/10W
R519	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R520	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R521	1-216-821-11	METAL CHIP	1K	5%	1/10W
R522	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R523	1-216-845-11	METAL CHIP	100K	5%	1/10W
R524	1-216-845-11	METAL CHIP	100K	5%	1/10W
R525	1-216-845-11	METAL CHIP	100K	5%	1/10W
R526	1-216-841-11	METAL CHIP	47K	5%	1/10W
R527	1-216-845-11	METAL CHIP	100K	5%	1/10W
R528	1-216-833-11	METAL CHIP	10K	5%	1/10W
R529	1-216-845-11	METAL CHIP	100K	5%	1/10W
R530	1-216-845-11	METAL CHIP	100K	5%	1/10W
R531	1-216-845-11	METAL CHIP	100K	5%	1/10W
R532	1-216-845-11	METAL CHIP	100K	5%	1/10W
R533	1-216-845-11	METAL CHIP	100K	5%	1/10W
R534	1-216-845-11	METAL CHIP	100K	5%	1/10W
R535	1-216-809-11	METAL CHIP	100	5%	1/10W
R536	1-216-811-11	METAL CHIP	150	5%	1/10W
R537	1-216-845-11	METAL CHIP	100K	5%	1/10W
R538	1-216-845-11	METAL CHIP	100K	5%	1/10W
R539	1-216-809-11	METAL CHIP	100	5%	1/10W
R540	1-216-809-11	METAL CHIP	100	5%	1/10W
R541	1-216-849-11	METAL CHIP	220K	5%	1/10W
R543	1-216-845-11	METAL CHIP	100K	5%	1/10W
R545	1-216-845-11	METAL CHIP	100K	5%	1/10W
R546	1-216-845-11	METAL CHIP	100K	5%	1/10W
R547	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R548	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R549	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R550	1-216-845-11	METAL CHIP	100K	5%	1/10W
R551	1-216-864-11	SHORT CHIP	0		
R553	1-216-821-11	METAL CHIP	1K	5%	1/10W
R554	1-216-821-11	METAL CHIP	1K	5%	1/10W
R555	1-216-833-11	METAL CHIP	10K	5%	1/10W
R556	1-216-833-11	METAL CHIP	10K	5%	1/10W
R557	1-216-809-11	METAL CHIP	100	5%	1/10W
R558	1-216-809-11	METAL CHIP	100	5%	1/10W
R559	1-216-845-11	METAL CHIP	100K	5%	1/10W
					(GT610U)
R560	1-216-845-11	METAL CHIP	100K	5%	1/10W
				(GT660U/GT660US)	
R562	1-216-845-11	METAL CHIP	100K	5%	1/10W
R563	1-216-845-11	METAL CHIP	100K	5%	1/10W
R570	1-216-864-11	SHORT CHIP	0		
R571	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R572	1-216-845-11	METAL CHIP	100K	5%	1/10W
R573	1-216-845-11	METAL CHIP	100K	5%	1/10W
R574	1-216-845-11	METAL CHIP	100K	5%	1/10W
R600	1-216-864-11	SHORT CHIP	0		
R601	1-216-851-11	METAL CHIP	330K	5%	1/10W
R602	1-216-851-11	METAL CHIP	330K	5%	1/10W
R603	1-216-821-11	METAL CHIP	1K	5%	1/10W
R604	1-216-835-11	METAL CHIP	15K	5%	1/10W
R605	1-216-809-11	METAL CHIP	100	5%	1/10W
R606	1-216-821-11	METAL CHIP	1K	5%	1/10W
R607	1-216-821-11	METAL CHIP	1K	5%	1/10W
R610	1-216-809-11	METAL CHIP	100	5%	1/10W
R611	1-216-809-11	METAL CHIP	100	5%	1/10W
R701	1-216-821-11	METAL CHIP	1K	5%	1/10W
R702	1-216-841-11	METAL CHIP	47K	5%	1/10W
R703	1-216-833-11	METAL CHIP	10K	5%	1/10W
R704	1-216-833-11	METAL CHIP	10K	5%	1/10W
R705	1-249-425-11	CARBON	4.7K	5%	1/4W
R706	1-216-841-11	METAL CHIP	47K	5%	1/10W
R707	1-216-841-11	METAL CHIP	47K	5%	1/10W
R708	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R709	1-216-049-11	RES-CHIP	1K	5%	1/10W
R710	1-249-425-11	CARBON	4.7K	5%	1/4W
R711	1-216-845-11	METAL CHIP	100K	5%	1/10W
R712	1-216-837-11	METAL CHIP	22K	5%	1/10W
R801	1-218-869-11	METAL CHIP	8.2K	0.5%	1/10W
R802	1-218-883-11	METAL CHIP	33K	0.5%	1/10W
R803	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R804	1-218-907-11	METAL CHIP	330K	0.5%	1/10W

MAIN **SERVO** **SUB**

Ref. No.	Part No.	Description			Remark
R805	1-218-893-11	METAL CHIP	82K	0.5%	1/10W
R806	1-216-821-11	METAL CHIP	1K	5%	1/10W
R808	1-216-821-11	METAL CHIP	1K	5%	1/10W
R809	1-216-821-11	METAL CHIP	1K	5%	1/10W
R810	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R811	1-216-821-11	METAL CHIP	1K	5%	1/10W
R812	1-216-833-11	METAL CHIP	10K	5%	1/10W
R813	1-216-821-11	METAL CHIP	1K	5%	1/10W
R830	1-216-797-11	METAL CHIP	10	5%	1/10W
		< SWITCH >			
S102	1-786-458-11	SWITCH, PUSH (1 KEY) (NOSE DET)			
S103	1-692-431-21	SWITCH, TACTILE (RESET)			
S501	1-571-478-11	SWITCH, SLIDE (FREQUENCY SELECT) (E,CH,IND,MX)			
		< THERMISTOR (POSITIVE) >			
TH400	1-803-350-21	THERMISTOR, POSITIVE			
		< TUNER UNIT >			
TU1	A-3220-961-B	TUNER UNIT (TUX-032)			
		< VIBRATOR >			
X500	1-813-524-21	VIBRATOR, CERAMIC (18.432MHz)			
X501	1-813-202-11	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
	A-1206-357-A	SERVO BOARD, COMPLETE			
		**********			
**********					
		SUB BOARD			
		**********			
	1-833-591-11	CABLE, FLEXIBLE FLAT (20 CORE) (CN202)			
		< CAPACITOR >			
C202	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN201	1-818-142-11	SOCKET, CONNECTOR 20P			
CN203	1-691-550-11	PIN, CONNECTOR (1.5mm) (SMD) 3P			
		< DIODE >			
D203	8-719-420-90	DIODE MA8051-M			
D204	8-719-420-90	DIODE MA8051-M			
LED201	8-719-053-09	LED SML-310VTT86 (CD INDICATOR)			
LED202	8-719-053-09	LED SML-310VTT86 (⏏)			
		< RESISTOR >			
R201	1-216-812-11	METAL CHIP	180	5%	1/10W
R202	1-216-815-11	METAL CHIP	330	5%	1/10W
R203	1-216-797-11	METAL CHIP	10	5%	1/10W
R204	1-216-797-11	METAL CHIP	10	5%	1/10W
R205	1-216-864-11	SHORT CHIP	0		
		< SWITCH >			
S201	1-786-653-21	SWITCH, TACTILE (⏏)			
**********					

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
12	1-833-102-11	CORD (WITH CONNECTOR) (POWER)	
13	1-833-887-11	CONNECTION CORD (RCA) (SUB OUT (MONO))	
⚠103	X-2149-672-1	SERVICE ASSY, OP (DAX-25A)	
FU601	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
**********			
		ACCESSORIES	
		**********	
	1-479-077-13	REMOTE COMMANDER (RM-X151)	
	2-548-729-01	LID, BATTERY CASE (for RM-X151)	
	2-888-758-21	MANUAL, INSTRUCTION (ENGLISH,FRENCH) (CND)	
	2-888-758-51	MANUAL, INSTRUCTION (ENGLISH,SPANISH, SIMPLIFIED CHINESE) (E,CH,IND,MX)	
	2-888-758-61	MANUAL, INSTRUCTION (ENGLISH,ARABIC, PERSIAN) (EA)	
	2-888-759-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH) (CND)	
	2-888-759-51	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH,SIMPLIFIED CHINESE) (E,CH,IND,MX)	
	2-888-759-61	MANUAL, INSTRUCTION, INSTALL (ENGLISH, ARABIC,PERSIAN) (EA)	
	X-2149-228-2	CASE ASSY (for FRONT PANEL)	
**********			
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
151	X-3382-647-1	FRAME ASSY, FITTING	
152	2-638-099-01	COLLAR	
153	3-246-471-01	KEY (FRAME)	
154	X-3381-154-1	SCREW ASSY (BS4), FITTING (GT660U/GT660US)	
155	3-349-410-11	BUSHING (GT660U/GT660US)	
156	3-934-325-01	SCREW, +K (5X8) TAPPING	
157	1-833-102-11	CORD (WITH CONNECTOR) (POWER)	
158	1-833-595-11	CORD, CONNECTION (VIDEO/AUDIO) (GT610U)	



CDX-GT610U/GT660U/ GT660US

SONY

SERVICE MANUAL

Ver. 1.1 2007.03

Canadian Model
CDX-GT610U
E Model
CDX-GT660U/GT660US
Chinese Model
CDX-GT660U

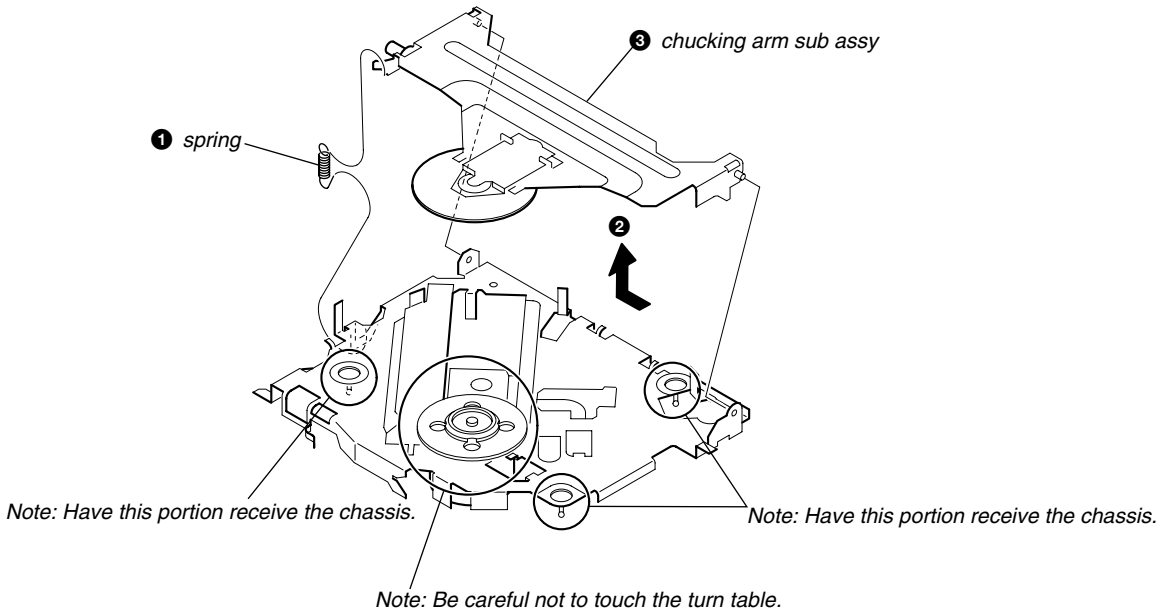
SUPPLEMENT-1

File this supplement with the service manual.

Subject: Notes for removal of the OPTICAL PICK-UP added.

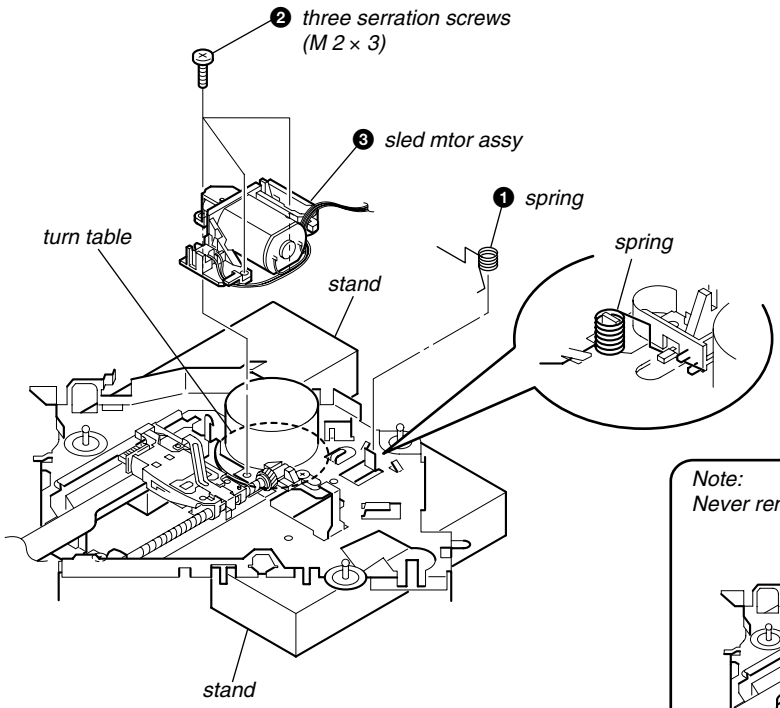
DISASSEMBLY

1. CHUCKING ARM SUB ASSY


❸ chucking arm sub assy
❶ spring
❷
Note: Have this portion receive the chassis.
Note: Have this portion receive the chassis.
Note: Be careful not to touch the turn table.

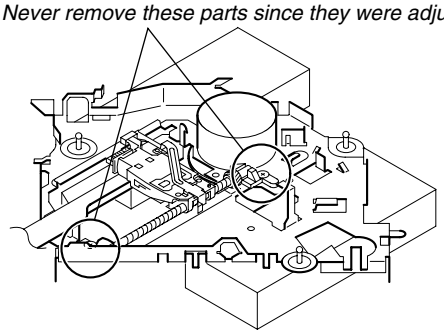
9-887-481-81

2. SLED MOTOR ASSY

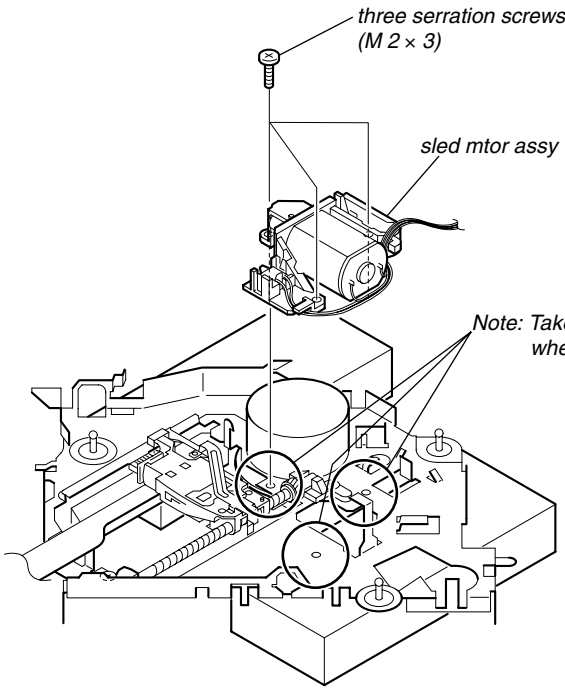


Note: Place the stand with care not to touch the turn table.

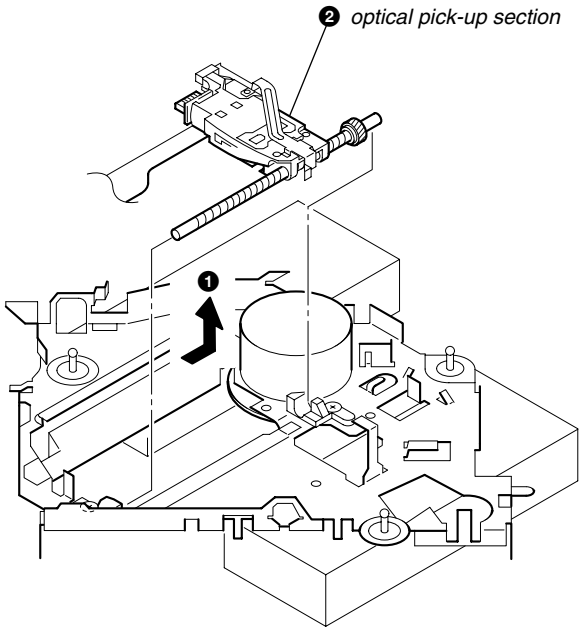
Note:
Never remove these parts since they were adjusted.

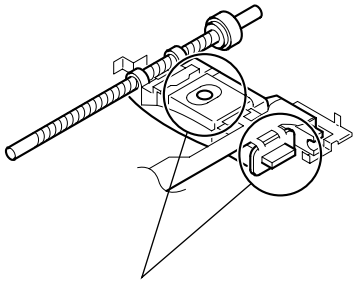


Note for Assembly


three serration screws
(M 2 × 3)
sled mtor assy
Note: Take care to prevent the chassis from being bent
when tightening the three machine screws.

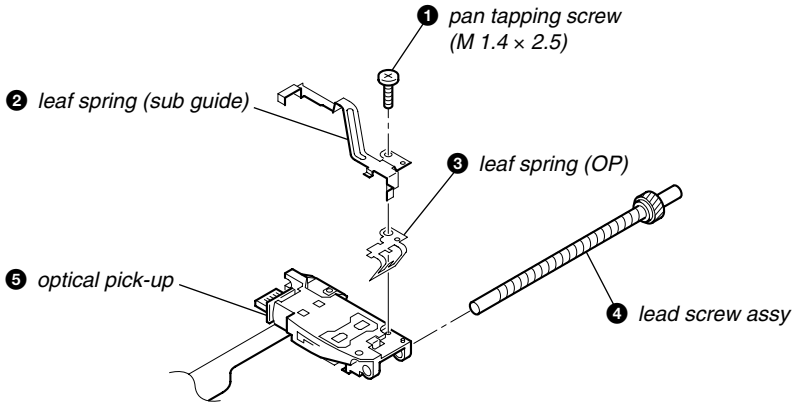
3. OPTICAL PICK-UP SECTION



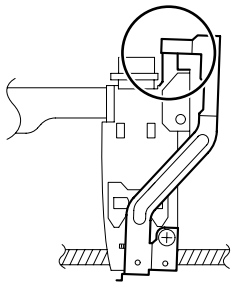


Note: Be careful not to touch the lens and hologram terminal when removing the optical pick-up section.

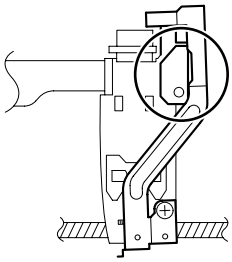
4. OPTICAL PICK-UP



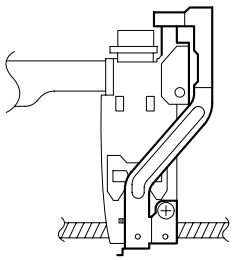
Notes for Assembly



Prevent the end of the leaf spring (sub guide) from being in contact with the OP slide base.



Prevent the end of the leaf spring (sub guide) from being in contact with the OP slide base.



There is space at the end of the leaf spring (sub guide) to avoid contact with the slide.

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2006.11	New
1.1	2007.03	Notes for removal of the OPTICAL PICK-UP added. (SUPPLEMENT-1) (ENG-07003)